TECHNOLOGY DEPT.

JUNE, 1952

Telephone Engineer and Management

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JUN 23 1952
DETROIT

THE NATIONAL TELEPHONE MAGAZINE

Featuring In This Issue—

- The Markets For New Capital, by A. W. Kimber
- Question & Answer Session With REA, by Roland Davies and Fred Henck
- Good Press Relations, by Dave Markstein
- "A Man-Size Operation", by A. S. Fowler

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GOULD *Industrial Batteries*

GOULD-NATIONAL BATTERIES, INC., TRENTON 7, N. J.

Always Use Gould-National Automobile and Truck Batteries

Across The Editor's Desk

Friends of FRANK L. ELDRIDGE will be happy to hear he is convalescing from his illness suffered while visiting the Texas convention during March. He is now at the Evanston Hotel, Evanston, Ill., and would like to hear from his friends. The Wisconsin State Telephone Association passed a resolution honoring Frank who missed his first Wisconsin meeting in 41 years. He is an Honorary Member of that association.

• • •

JOSEPH E. BYRNE, for the past 15 years recording secretary of the Wisconsin association, has opened his office as a Consultant to telephone companies. In his new work Mr. Byrne will handle rate cases, serve as accounting consultant and other details of management. His convention last month was a fitting climax to his service to Wisconsin Independents. His duties as secretary has been well filled in the selection of RAY RIORDAN as his successor.

• • •

JEAN SHOTWELL, for many years manager of the Lufkin (Tex.) Telephone Co., and the perennial treasurer of the Texas Telephone Association, has retired from his company and as treasurer of the association. He will continue as a director. Jean has been seriously ill for some time. Marion Clay, formerly a sales representative of the Stromberg-Carlson Co., with offices in Kansas City, succeeded Mr. Shotwell as manager of the Lufkin company.

• • •

Our condolences to the DeWITT TALMAGES of Chicago on the accidental death of their son John, 15, in an automobile accident. "Ted" Talmage will be remembered by long-time readers of TELEPHONE ENGINEER for his many articles carried in past issues. He is now assistant sales manager of the Kellogg Switchboard & Supply Company, Chicago.

• • •

Thank you for your many letters praising our 1952 COMPOSITE CATALOG & BUYER'S DIRECTORY mailed to you in mid-May.

The National Telephone Magazine

Telephone Engineer *and Management*

JUNE 1952

Editor, RAY W. SMITH • *Advertising Director,* ROY F. SMITH
Managing Editor, JOHN G. REYNOLDS
Financial Editor, ALBERT W. KIMBER
Production Manager, VIRGINIA McCOLLUM
Advertising Manager, DON C. SORENSEN
Washington Bureau, ROLAND C. DAVIES *and* FRED HENCK
Circulation Manager, VIOLET ALTMEYER

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FRONT COVER

Officers and directors of the New York State Tel. Assoc. (left to right, seated): Don W. Walker, sec'y & ass't. treas., Shortsville; Louis H. Meyer, Johnstown; Harold C. White, Jamestown; S. M. Thomas, Cazenovia; Frank D. Fancher, Middletown; (left to right, standing), William A. Kern, Rochester; Hamilton A. Cunningham, executive sec., Albany; S. Fred Nixon, Jr., Westfield; M. L. Sperry, Jr., Walden; George S. Beckwith, Keeseville; William A. Seely, Norwich; and Sheldon A. Birdsall, Margaretville.

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GraybaR TELEPHONE NEWS

MR. GILLILAND'S NEW CONTRAPTION!

In 1885, the Gilliland "Harness" represented the ultimate in operator headsets. Aptly named, it weighed over 6½ pounds — thus limiting the selection of switchboard operators to only the most sturdy and robust applicants.

The Gilliland Harness, however, pointed up the importance of operator comfort. As a result, headsets today are available via Graybar weighing as little as 6¼ oz. In addition, Graybar has helped many independent telephone companies plan for building-wide comfort of personnel through proper lighting and ventilation.

MAGNETO SERVICE CAN BE MODERN, TOO!

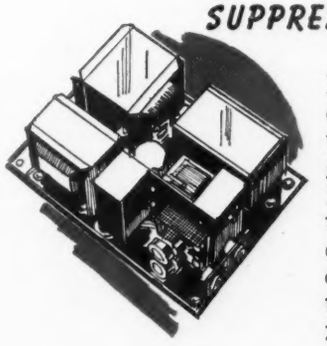
Sleek, handsomely-styled magneto telephone desk sets keep pace with modern living. Ideal for long, heavily-loaded rural lines, they offer your most distant subscribers ultra-clear reception and transmission, as well as reliable ringing. They're easily converted at any time for common battery operation. You can get both magneto and common battery instruments from your local Graybar office.

At the other end of the line, Graybar offers you a complete selection of magneto switchboards... common battery switchboards . . . combination common battery and magneto units.

THIS MAN CAN HELP YOU PLAN CENTRAL STATION AND POLE-LINE CONSTRUCTION

With more than 18 years of practical telephone experience behind him, the average Graybar Telephone Specialist is well-qualified to help you with your problems — feel free to call him for technical help at any time.

SUPPRESSES RADIO INTERFERENCE



Lorain SUB-CYCLE ringing machines feature built-in suppressors to eliminate radio interference . . . give long-term, trouble-free service. In like manner, Graybar-distributed battery chargers, battery eliminators, power plants and accessories are carefully engineered to provide maximum efficiency and minimum maintenance.

260-226

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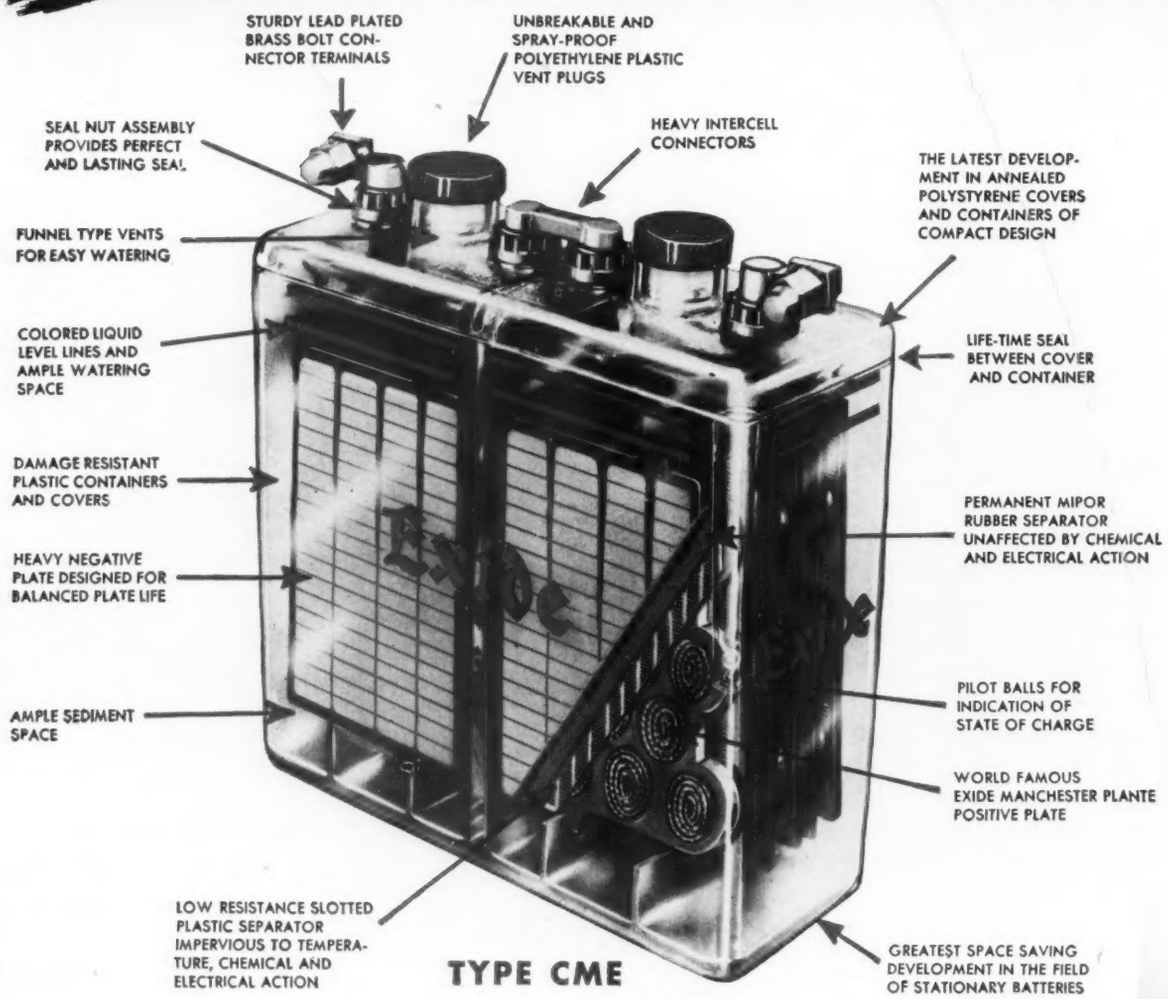
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PERMANENT MIPOR RUBBER SEPARATOR UNAFFECTED BY CHEMICAL AND ELECTRICAL ACTION
HEAVY NEGATIVE PLATE DESIGNED FOR BALANCED PLATE LIFE
PILOT BALLS FOR INDICATION OF STATE OF CHARGE
AMPLE SEDIMENT SPACE
WORLD FAMOUS EXIDE MANCHESTER PLANTE POSITIVE PLATE
LOW RESISTANCE SLOTTED PLASTIC SEPARATOR IMPERVIOUS TO TEMPERATURE, CHEMICAL AND ELECTRICAL ACTION
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• LONG, TROUBLE-FREE LIFE • UNSURPASSED DEPENDABILITY for the most vital applications • LOW OPERATING COST. Extremely low internal resistance and losses, hence minimum charge currents are required • LOW MAINTENANCE COST. No solutions to change, nothing to renew. Requires water only once or twice a year. Smooth, streamline design facilitates cleaning • INCREASED POWER (watt) output per unit of space • LESS WEIGHT per ampere-hour output • MORE ATTRACTIVE INSTALLATIONS • LESS SPACE REQUIRED • HIGHLY-SUSTAINED USEFUL VOLTAGE even under heavy discharge • DAMAGE RESISTANT

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FOR ALL SMALL-POWER STATIONARY APPLICATIONS

This newest POWER IN PLASTIC is an Exide development in stationary batteries for applications requiring up to 24 ampere hours at 8-hour rate. Back of this new Exide-Manchex battery are years of research-engineering, continuous laboratory checking and prolonged field testing. Result—a battery of *exceptional ruggedness*, with *high power ability in greatly reduced space.*

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PLASTIC CONTAINER AND COVER. Transparent as glass, lighter in weight, more compact and with much greater shock resistance. Container and cover are polystyrene—impervious to effects of electrolyte . . . annealed for high mechanical strength and heat resistance . . . permanent cover seal—electrolyte will not leak out. Container surface is smooth and easily kept clean.

LONG-LIFE MANCHESTER POSITIVE PLATE . . . of unique lead button construction—rolled strips of corrugated pure lead, pressed into framework of lead alloy grid. Forming action expands buttons and locks them securely in place. Only a small portion of lead is formed initially into active material . . . the remainder is available for gradual conversion in service. NEGATIVE PLATES match the long life of the positives.

DOUBLE INSULATION—Mipor separators, of microporous rubber, together with slotted polystyrene separators act as a permanent electrical insulator while permitting free diffusion of electrolyte. Both are unaffected by temperature, chemical or electrical action—they will not crack, crumble or break down in service. They provide maximum insulation with minimum resistance between plates, and assure long battery life even under severe charge-discharge conditions.

OTHER FEATURES: Elements are precision-fit and cover-suspended; separators are held in place by a bottom support of polystyrene. Adequate water space is provided; infrequent addition of water is made easy by molded-in-cover funnel filling vent . . . unbreakable and spray-proof plastic vent plugs . . . Lines on all four sides of container show recommended upper and lower electrolyte levels. Pilot balls indicate state of charge. Supplied charged and wet—or dry for prolonged storage.

SIZES AVAILABLE in three styles of containers and in capacities of 8, 16 and 24 A.H. at the 8-hour rate. Two-cell and three-cell assemblies may be combined to provide any desired voltage and to fit the available space. Other new Exide batteries are available in plastic up to 100 ampere hours capacity.

For all small-power stationary applications these new Exide-Manchex batteries, Type CME, are

YOUR BEST BATTERY BUY . . . AT ANY PRICE

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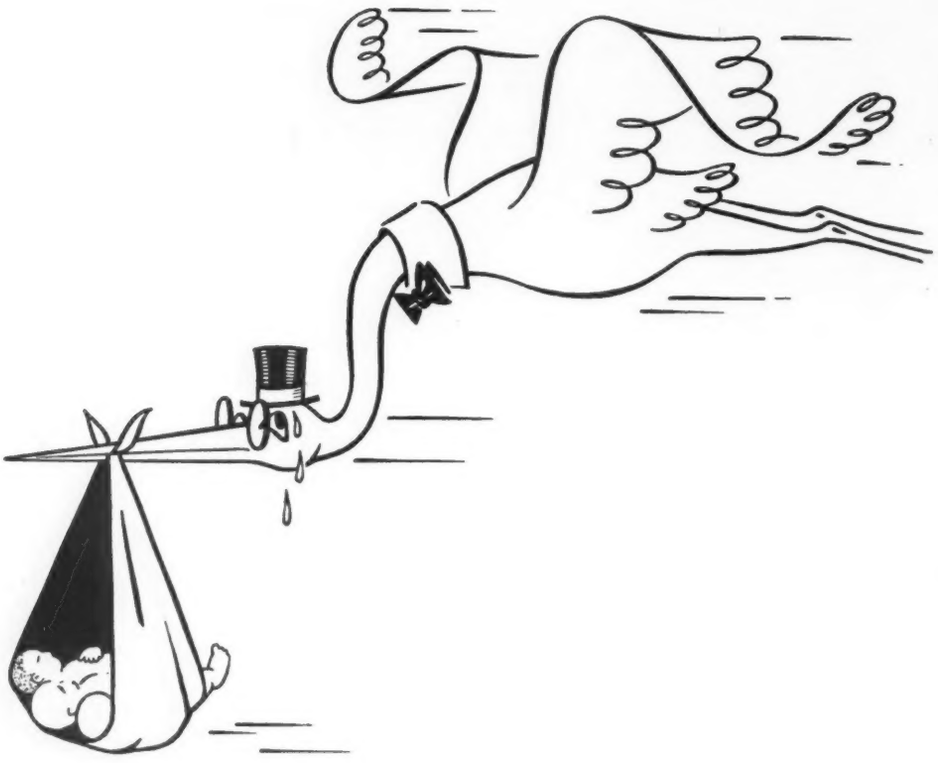

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results that count!

results... Our company has a long record of ***Proven Performance*** in which our customers have experienced a steady climb of ***Maximum Revenue*** from directory advertising—adding ***Extra Profits*** for ***Operating Expense*** and ***Dividends.***

results... Our company, with its ***Specialized Ability*** in the directory advertising field, has been geared to today's trends and patterns—giving ***Greater Emphasis*** and consideration to all directory ***Problems of Our Customers.***

results... Our company has always maintained the ***Best Public Relationship*** among the subscribers, which has not only embraced an interest in the Yellow Pages, but in the service of the telephone company as a whole.

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BRANCH OFFICES in: Birmingham, Alabama • Bristol, Chattanooga, Memphis and Nashville, Tennessee • Harrisburg, Pennsylvania • Jackson, Mississippi Kansas City, Kansas • Louisville, Kentucky • Milwaukee, Wisconsin • New Orleans, Louisiana • Rochester, New York • Tampa, Florida • Warsaw, Indiana

"News Is Always Welcome"

To The Editors:—You often carry stories about other telephone companies, therefore I take the privilege of sending you a clipping out of our local newspaper.

You may use as much of it as you want to and there will be no hard feelings if you don't use any of it. The enclosed clipping gives a pretty good cross section of the work we have done lately and intend to do in the next year or two.

We read your magazine carefully and derive much benefit from it. Those trade magazines are quite a boon to us telephone men. Keep up the good work.

J. F. Eitzen
Manager
North Star Tel. Co.,
Mt. Lake, Minn.

Things are certainly moving in your territory Mr. Eitzen and we're glad to have the story. You'll find it in the June Fortnightly Telephone Engineer.—The Editors.

"Thanks, Mr. Bishop . . ."

To The Editors:—In several issues of Telephone Engineer you have used a picture of our long distance department. Such a picture appeared again in the March issue on page 22; this picture heads up "Modern Central Office Maintenance Practice." For your information this picture was taken in connection with the moving of eight positions of Automatic Electric remote control cordless toll board. The entire eight positions was moved in one hour and forty-five minutes. This move was from one building across an alley to the new building. You will note the cables on the floor and up into the various positions. These cables were put on the equipment and on the various positions. They were long enough to reach the toll positions' new destination. Each two positions were cabled separately so that each two positions could be picked up and carried to the new location with the long cable trailing along and being operated while in transit. This picture shows the equipment just after the move. The temporary cables shown in the picture were after replaced with permanent cables under the floor. This picture and move was made May 24, 1948.

We are pleased to know that you would use the picture taken in our long distance department. However, we are sending you two later pictures taken in the same room showing the number of positions added since this first picture was taken. The one picture was taken June 1, 1951 and the other was taken May 24, 1948. Am sending you these two, thinking perhaps you would like to have them. As soon as you are thru with them we would like for them to be returned.

Fred S. Bishop
Supt. of Equipment
Richmond (Ind.)
Home Telephone Co., Inc.

Thanks, Mr. Bishop for bringing us up-to-date on the picture we have been using to head up Mr. Reed's Central Office series. We appreciate finding out just who belongs to the picture and you will find the new pictures in a future issue.—The Editors.

"Glad You Liked It . . ."

To The Editors:—Being a constant reader of your periodicals I have read your April 1952 issue of

My Neighbors

By Bill Paulson

"Tryin' to run the country under price and wage controls is like tryin' to catch a bus with hobbles on your ankles."

YOUR GUARDS ARE DOWN!

DO AWAY WITH GUY GUARD TROUBLES LIKE THIS . . .

SPECIFY Flexibal

THE GUARD THAT CAN'T GO WRONG!

COSTS 1/3 LESS THAN METAL GUARDS—AND NO MAINTENANCE PROBLEM

FLEXIBAL Guy Guards — in standard lengths — provide the flexibility that gives with the blow and cushions the impact. Aluminum-painted, they offer both day and night visibility. No other type of guard is so easy to handle, so simple to install — none so effectively cut down losses — never gets out of commission.

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Write for Free Sample and Prices

IMMEDIATE DELIVERY

TEN COMPLETE SETS IN THIS ONE LIGHT EASY TO HANDLE CARTON

SEE YOUR JOBBER OR WRITE TO
S. E. OVERTON COMPANY
SOUTH HAVEN, MICHIGAN

Ideas!

How often have you had an excellent *idea* and failed to follow up on it?

If you are human you have done this many, many times.

Many of these *ideas* could have saved you time and money, and could possibly have resulted in greater profits for your company if executed.

Every issue of TELEPHONE ENGINEER and MANAGEMENT presents many *ideas* that can add to the profits of telephone companies . . . if . . . these *ideas* are read by the right people and are then acted upon.

To get these *ideas* to the right people in your company every month why not subscribe to TELEPHONE ENGINEER and MANAGEMENT for each of your key employees?

The cost is but $3.00 per year and the new ideas gained by them should return your investment many times over. We can send the magazine to their respective homes if you desire.

Don't neglect this *idea!*

Please send TELEPHONE ENGINEER AND MANAGEMENT to the following employees for one year. Remittance of $3.00 for each subscription will be forwarded upon receipt of your statement.

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Mail to
TELEPHONE ENGINEER and MANAGEMENT
7720 Sheridan Road
Chicago 26, Illinois

TELEPHONE ENGINEER AND MANAGEMENT. I especially read the article by Richard Allen, "New Ideas in Drop Wire". As station installations foreman for the Denver & Ephrata Tel. & Tel. Co., Ephrata, Penna. I especially appreciate this article. Does Mr. Allen's illustration refer to Bell Specifications or some other company. I would be interested in securing a Standard or revised spec. I find that many employees are not interested in a lengthy article on how to perform a certain job, but good clear illustrations as to proper methods of installation go a long way in inducing proper methods among themselves. If this literature is available I would appreciate further information as to where it could be obtained. Thanking you for this service.

G. LESTER WHITE
R. F. D. No. 1
EPHRATA, PA.

Our editors are still glowing about your nice letter and they have arranged to forward you a revised drop wire spec. Let us know if we can be of further help.—THE EDITORS.

"Glad You Like Us . . ."

TO THE EDITORS:—Permit me to commend you on doing a swell job of publishing a fine magazine for the telephone man. I look forward with much interest to receiving each copy. I take special interest in such articles as Mr. Reed's fine work on modern central office maintenance.

It is, in fact, on account of mention of a product called "Misto" in Mr. Reed's article that circumstances have come about which prompt me to write this letter. Upon reading about "Misto" in Mr. Reed's article, I became curious to know more about the source of supply for this product. A letter to Mr. Reed brought a prompt reply giving the name of the manufacturer and a letter to the manufacturer resulted in a phone call from the representative for this area.

. . .

I wish to thank your Mr. Reed for his co-operation in this matter and to wish you continued and ever increasing success in your endeavors to be of service to the telephone man.

STEPHEN HULLAN, JR.
169 Second Ave.
ALBANY 2, NEW YORK

"Helpful Editorial . . ."

TO THE EDITORS:—Under separate cover is forwarded to you the *Sacred Heart (Minn.) News* of May 22, 1952, which contains a reprint of your recent editorial *"The Small Company Problem of Keeping up with the Procession."*

I thought this article excellent and the paper folks were glad to get it and give it circulation in the area that it serves. The fact that I have lately become interested as owner of controlling shares of stock in the local small telephone company, that the plant is now one of the more obsolete and is due for a complete overhaul this year and that the subscribers should be made aware of the importance of adequate rates to insure the continuation of local ownership and management led me to take advantage of your permission to use the article as above stated.

At a mass meeting of telephone subscribers held this week it was decided to continue service on the manual plan of operation. New board, exchange house, cable plant, and several new rural lines will be constructed so as to make the plant effective of good service and adaptable for dial service at a later date.

T. O. BERGE
MONTROSE TELEPHONE CO.,
MONTROSE, S. D.

Thanks for your comments on our editorial, Mr. Berge. We're glad you put it to such good use.—THE EDITORS.

QUOTES

"When the government undertakes to provide a living for any person or a group of people, the cost of that living must come out of the work and the earnings of other people. And that sort of living cost comes high for the people who foot the bill through taxation." ***—Weatherly, (Pa.) Herald.***

• • •

"One of the freedoms so ardently pressed by the new deal advocates was freedom from fear. Now that little gimmick was devised in the first place to pave the way for the alleged 'welfare state' envisioned by the master minds in Washington. . . . This nation was founded on the theory that every man would do his part, without the necessity of an overlord to direct his destiny from the cradle to the grave, whether that overlord be an autocratic king, a dictator or a paternalistic government." ***— Appollo (Pa.) News-Record.***

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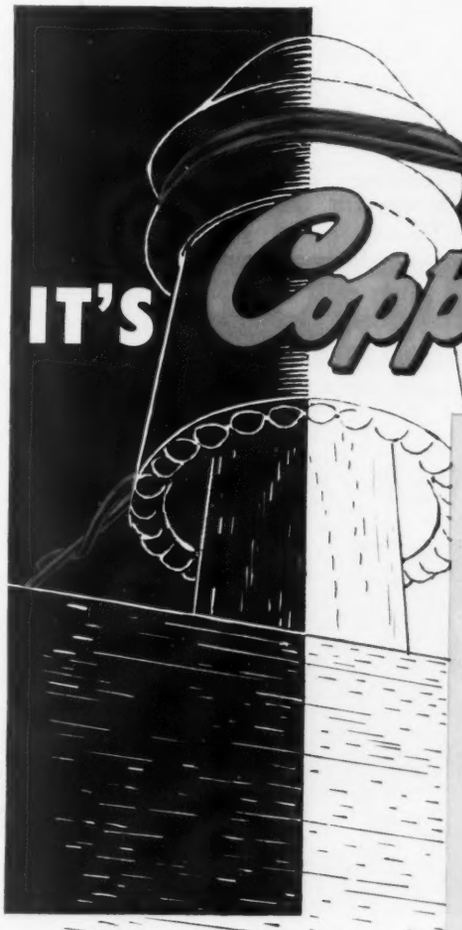
IN VOICE OR SIGNAL TRANSMISSION---

IN LONG, RUST-RESISTING LIFE---

yet SAVES copper

(up to 70%)

AND IS OVER TWICE AS STRONG



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TRADE MARK

Good electrical transmission and consistent, trouble-free service are essential in communication and signal lines. You can depend on Copperweld* Line Wire to provide these advantages—vitally important in building customer good-will and in reducing operating costs.

Because its thick copper covering and strong steel core are inseparable, Copperweld Line Wire has the rust-resisting life of solid copper. It retains its original voice and high frequency transmission properties which are better than any other high-strength conductor.

Copperweld's permanent high strength assures greater safety for long spans, with the stamina to resist heavy ice and wind loads. Construction costs are reduced because fewer poles, accessories and man-hours are required.

When you build overhead lines, remember that Copperweld is the only wire that will give you the high conductance and long life of copper plus the rugged strength of steel. And, at the same time, you'll be saving substantial amounts of copper. Write us today for engineering assistance . . . there's no obligation.

*Trade Mark

COPPERWELD STEEL COMPANY
Glassport, Pa.
SALES OFFICES IN PRINCIPAL CITIES

for safer long spans---

Copperweld Line Wire

TRADE MARK

SOLD BY LEADING DISTRIBUTORS

Destined for a long life of service

Here are poles destined for a long life of service to some telephone company. For they are Taylor-Colquitt treated Southern Pine . . . carefully selected . . . machine trimmed . . . vapor dried . . . and thoroughly treated to insure many years of use.

Throughout most of the States east of the Mississippi River, Taylor-Colquitt poles like these are regularly going into new and existing telephone lines. There these poles, like the millions which have preceded them during the past 26 years, will reflect in their rugged resistance to age and decay, the faithful care that Taylor-Colquitt has put into their production.

Taylor-Colquitt poles are distributed to independent telephone companies exclusively by Automatic Electric Sales Corporation, 1033 W. Van Buren St., Chicago 7, Illinois

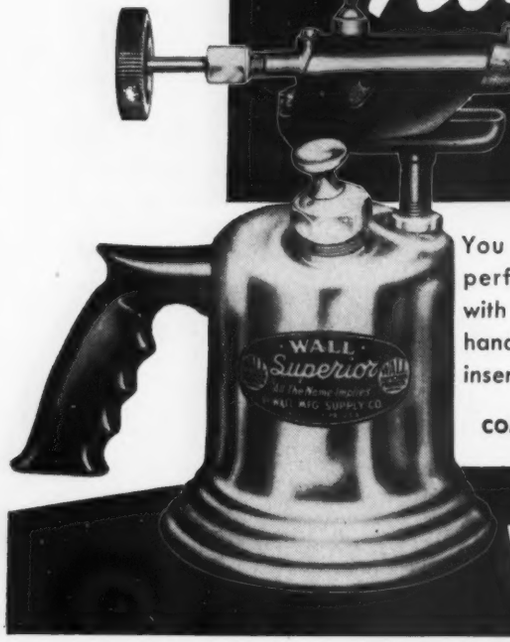
TAYLOR-COLQUITT CO.
SPARTANBURG, SOUTH CAROLINA

PLANTS AT SPARTANBURG, SOUTH CAROLINA AND WILMINGTON, NORTH CAROLINA

Safer THAN EVER • *Better* THAN EVER

SOLDERING PRODUCTS — WALL — *The Safety Line* — SINCE 1864

Pisto Grip BLOW TORCH



You get added safety and added performance in Wall Blow Torches with the revolutionary new Pisto-Grip handle. Drawn steel tank has brazed inserts and electrically seamed bottom. The Wall blow-proof pump means added safety. Available in brass or steel. No extra cost for this new handle. It will sell on sight! Write today for complete catalog.

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WALL MANUFACTURING CO.
Grove City, Pa.

SOLDERING PRODUCTS — WALL — *The Safety Line* — SINCE 1864

NEWSLETTER
TELEPHONE ENGINEER

Fortnightly TELEPHONE ENGINEER ★ TELEPHONE ENGINEER AND *Management*

ON THE 1st OF EACH MONTH ON THE 15th OF EACH MONTH

NEWSLETTERS *on Alternate Weeks*

June 15, 1952

Dear Sir:

Rural Electrification Administration (REA) approved $1,758,000 telephone loan allocation to Southcentral Rural Tel. Cooperative Corp., Glasgow, Ky. As nucleus for its new system, co-op will acquire magneto exchanges of Southern Continental Tel. Co. at Mumfordville, Hardyville & Hiseville, its common-battery exchanges at Horse Cave & Cave City, & rural lines of its Glasgow exchange. In addition, co-op will acquire mutual magneto exchange at Gamaliel. Acquired properties total 226 miles of line serving 1766 subscribers. All acquired property will be rebuilt & all central offices converted to dial operation. With rebuilt properties as base, co-op will build 994 miles of new lines & provide dial telephone service to 3320 rural subscribers who do not have service now. 10 new dial exchanges will be constructed at various places in area. New facilities will be located in Hart, Barren, Metcalf, Monroe, Allen & possibly Green Counties.

Southwest Tel. Cooperative, Inc., Arkadelphia, Ark., was granted $423,000 allocation to expand & improve telephone service in Miller County. Co-op will acquire facilities of Garland-Fouke Tel. Co., which now serves villages of Garland City & Fouke in Miller County. Exchanges now serve 134 subscribers. New system, when completed will consist of 372 miles of line serving 908 rural subscribers with unattended dial central offices in Fouke, Garland City, Ark., & Dodridge-Brightstar. New construction will include 332 miles of line.

* * *

Utah Public Service Commission authorized Mountain States Telephone & Telegraph Co. to pass municipal franchise, occupation & license taxes to consumers living within areas in which these taxes are levied. Commission also ruled that whenever city reduces or eliminates such special taxes increased rate shall be reduced or eliminated accordingly.

Permission to bill consumers directly in areas which have levied franchise or special taxes gainst company was granted as alternative to having such taxes included in cost of service rendered.

* * *

Concluding that Carolina Tel. & Tel. Co. is entitled to return of 6½% on net investment as of close of 1951, North Carolina Utilities Commission approved rate increase of $455,000 after taxes, or slightly more than half of $900,000 after taxes asked by company.

Commission praised company's efforts to meet unprecedented service demands during postwar period, pointing to large additional investment required & noted that Carolina Tel. & Tel.'s return on increased investment fell well below amount anticipated to result from 1950 rate decision. It was pointed out that company's investment at close of 1945 was $9.6 million & that it climbed to nearly $23 million by end of 1951.

If increased federal income tax rates & higher salary & wage levels had been in effect throughout 1951, commission staff estimated rate of return of North Carolina Independent would have been 4.85%.

* * *

HIGHLIGHTS: Osakis (Minn.) Tel. Co. plans completion of $85,000 modernization program of entire system by 1953 . . . Grainfield Tel. Co., Inc., Gove County, Kans., granted charter with $50,000 capital stock . . . North Dakota Tel. Co. completed conversion of Landon (N. D.) exchange to automatic . . . Granite Falls (Minn.) Tel. Co. plans long-range improvement program, including change-over to automatic system . . . Valley Tel. Co-op., Inc., Lyford, Tex., incorporated by James B. Pinson, Burton C. Hester, & Verner E. Gustafson . . . Brazos Tel. Co-op., Inc., Olney, Tex., incorporated by T. G. Price, Hamilton Choat & Wilborn Keeter . . . C. T. Adair, owner of Lincoln-Desha Tel. Co., Star City, Ark., purchased Tillar (Ark.) Tel. Co. . . . Mulberry (Ark.) Tel. Co., Inc., incorporated by W. C. Kramp, Ouita & Mark Folker.

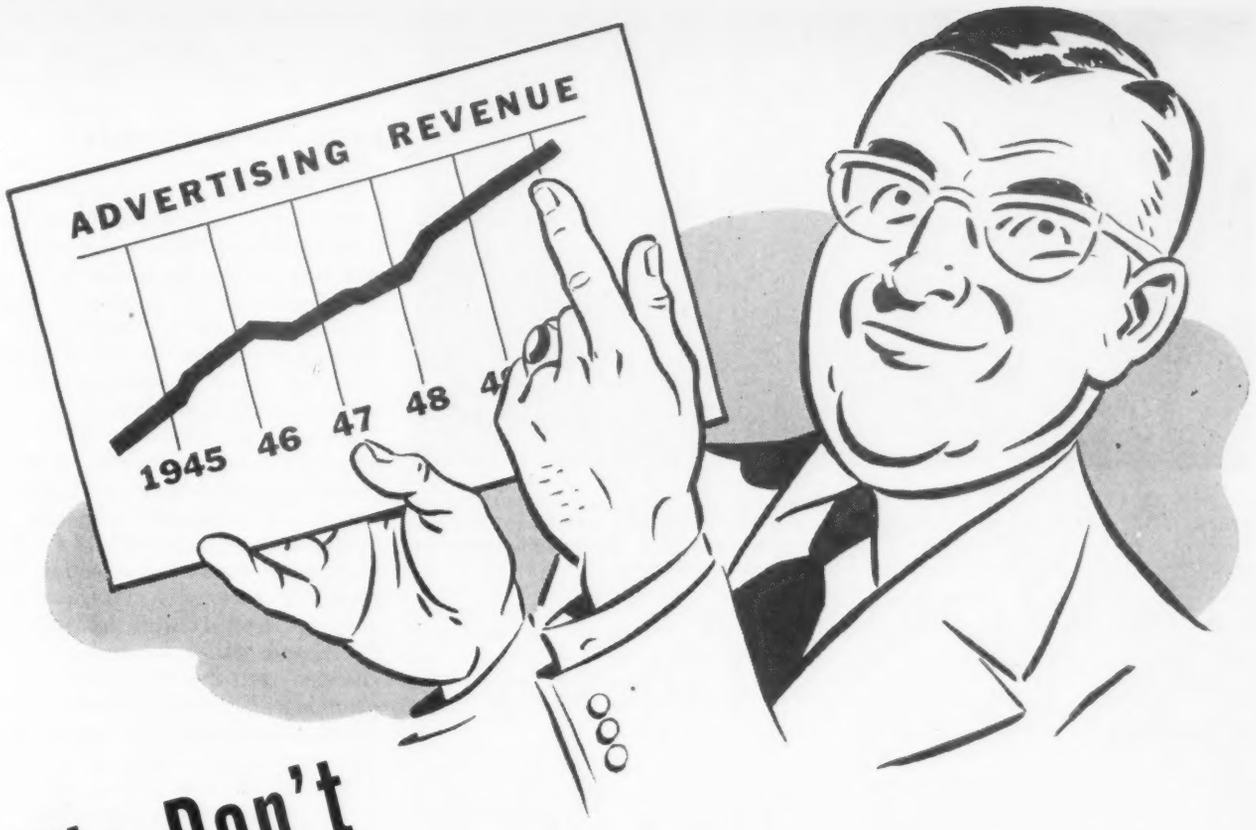
Midland Tel. Co. installed dial system at Moab (Colo.) exchange . . . Emery County Farmers Tel. Assoc., Castle Dale, Utah, awarded contract for construction of system . . . Douglas Tel. Co., Douglas, Ga., filed application with Georgia Public Service Commission for permission to operate as co-op . . . A. S. Crane, pres. of Missouri Tel. Co., Columbia, announced plans for automatic system at Centralia (Mo.) exchange . . . Fred A. Lane assumed duties of maintenance & installation of central office equipment for Welsh, La. exchange of United Tel. & Tel. Co., Dothan, Ala. . . . James E. Kington, former mgr. for Southwestern States Tel. Co., Ballinger, Tex., moved to Welsh, La., division office as commercial traffic supervisor . . . R. C. Johnson, Acting Sup't. of Communications for Missouri-Kansas-Texas Railroad, Denison, Tex., named Superintendent of Communications, succeeding H. Krattiger, who takes over other duties in company.

Maurice W. Covert, examiner for Missouri Public Service Commission, was named Commissioner to succeed Kyle D. Williams, who resigned post . . . Southwest Tel. Co., Pratt, Kans., installed new switchboard at Meade, Kans., exchange . . . Vyrl V. Clark named manager of Lincoln Tel. & Tel. Co. exchange at Wilber, Neb. Clark succeeds George Brock, who moved to Crete, Neb., as area mgr. . . . Lincoln Township Tel. Co., Darlow, Kans., liquidated. Area will be served by Southwestern Bell Tel. Co. . . . Merle M. Hale, vice pres. of Lincoln (Neb.) Tel. & Tel. Co., is now member of USITA Board of Directors. USITA Board appointed him to fill vacancy created by death of H. H. Wheeler . . . Michigan Assoc. Tel. Co., Muskegon, completed $128,000 dial system at Constantine, Mich., exchange . . . Chicago branch & factory of Kellogg Switchboard & Supply Co. will close for vacation from July 14 to July 25 . . . Cook Electric Co., Chicago, announced plant & office will close from June 28 through July 12.

DIED: Alexander Armstrong Sharp, 65, division connecting company representative for Southern Bell Tel. & Tel. Co., Louisville, Ky.

IMPORTANT NOTICE: Date for annual convention of the Michigan Independent Telephone Association changed from Sept. 12, 1952, to Sept. 19, 1952. Please correct your records & change reservation at Hotel Olds, Lansing, to proper date.

Ray W. Smith, Editor



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Mayor Carroll Wallace places first inter-toll call over new equipment at Attica, Ind. Seated at board taking call is Dorotha Shuppert, chief operator of the Union Telephone Co. Seated with Mayor Wallace is O. C. Buck, general manager. Standing is Joe B. Hill, central office equipment man.

Industry News Briefs

Edited By

JAMES A. BOYD

LINCOLN T. & T. CO.:

Absorbs Crete Company

THE LINCOLN TELEPHONE & TELEGRAPH CO., (Neb.) has been authorized by the State Railway Commission to absorb the Crete Telephone Co., and apply Lincoln T & T rates to the territory served by the Crete firm.

Two years ago the Lincoln company purchased the Crete company, which operates the Crete and Kramer exchanges. Since that time Lincoln T & T has put more than $40,000 into rehabilitation of the plants at both exchanges, according to Keith Vogt, railway commission chief accountant.

With the consolidation completed, Lincoln T & T will operate 124 exchanges.

William McOmber, who at the time of purchase was an installation and repairman at Crete, will manage the two exchanges. At the time of purchase, he was made manager of the Crete exchange.

RATES:

ICC Sets Recorder Rates

THE ILLINOIS Commerce Commission has authorized the Illinois Bell Telephone Co. to put into effect rates applicable to automatic answering and recording service. This service provides for automatic answering of telephones, transmission of a prerecorded message to the calling party and automatic recording of a message from the calling party.

The monthly rate for the service is $12.50, with an installation charge of $15. There is a service charge of $1.25 for each additional 10 recording discs and 50 cents for each additional answering disc.

The original equipment includes one recording and one answering disc. The ICC order held that a demand seems to exist for this service. Illinois Bell operates this service in two Indiana counties, Porter and Lake, an Illinois Bell spokesman said.

BELL OF CANADA:

New Rates

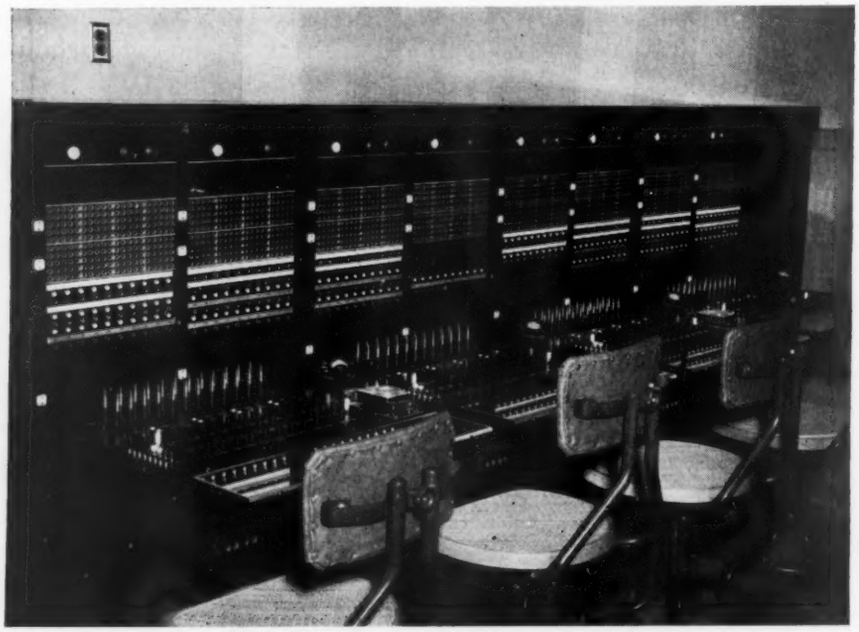
INCREASES IN local telephone rates for Quebec and Ontario were authorized recently by the Board of Transport Commissioners when the Board granted in part an application of the Bell Telephone Co. of Canada for increases aimed at yielding the company $10,000,000 a year.

Depending on the size of the community, the residential increases range from five cents to 35 cents a month. The business-telephone increases are as much as $1.75 a month. Toronto one-party residential rates go up 35 cents.

Simultaneously with the judgment, the Board issued an order making changes in the company's "rate groupings," the classifications into which communities are grouped for rate purposes according to size. The larger the city, the higher the basic rates. About 50 communities are boosted into higher rate categories. These include Brockville, Chatham, Guelph, New Toronto, and Saulte Ste. Marie.

While most rates were increased, some were scaled down from the rates set in November 1951. These included residential extensions and some business-phone extensions, as well as service connection charges and directory listings.

The Board confirmed its interim November order whereby the com-



New 4-position toll board (above) was recently placed in operation at the Attica, Ind., exchange of the Union Telephone Co. The new board is equipped with eight inter-toll trunks to Indianapolis.

pany was authorized to boost to 10 cents the long-standing five-cent call from public telephone-booths in Toronto, Ottawa, Windsor, London and Chatham, Ont. The increase will be made effective when the company gets the pay-telephone mechanism changed.

The straight increases in business and residential local service are heaviest in the largest cities, generally dropping in size through the smaller communities.

In the smaller groupings, the two-party residential increases amounted to only five cents a month all around. One-party increases ranged up to 25 cents for residences and 60 cents for business service.

The authorized increases compare with a range of between 15 and 60 cents a month sought by the company for residential service and between 60 cents and $2.75 a month for business service.

However, because they are scattered through a wide variety of services, a Bell company spokesman said it was impossible immediately to estimate what the percentage boost in revenue would be.

In the temporary November, 1951 decision of the board, it granted a general increase of five per cent in local rates and charges for equipment, along with long-distance increases of between five and 25 cents per call. Those rates became effective Nov. 25th.

The application—Bell's second in 25 years—was based largely on a company request that its financial position be bolstered to enable it to proceed with a heavy expansion program to meet demands for service. Added revenue to meet higher taxation also was sought.

RURAL:

Co-op Buys Two Exchanges

B. W. HOHMAN, Pelican Rapids, Minn., owner of the Sebeka and Menahga, Minn. telephone exchanges, has announced sale of the exchanges to the West Central Telephone Association.

The West Central Telephone Association is a telephone co-operative organized recently, and until now an inactive organization. With the acquisition of the two exchanges, the co-operative will begin to actively operate in the telephone field.

Officers and directors of the co-operative are: George Voss, president, Staples; Gordon Berg, vice-president, Staples; Paul Richter, secretary-treasurer, Wadena; Boyd Conley, Verndale; Matt Pulju, Menahga; Axel Hepola, Menahga; Frank Carlso, Deer Creek; Alvin Abrahamson, Browerville; Ray Erickson, New York Mills and Harry Nielsen, Sebeka.

Miss Gertrude Young of Beemer, Neb., is presented with a life membership in the Independent Telephone Pioneer Association by Merle M. Hale, national Pioneer president. The presentation was made in conjunction with ceremonies observing the 50th anniversary of the Cuming County Independent Telephone Co. at Wisner. Miss Young also celebrated her 50th anniversary in the Independent industry at that time.

Co-op Plans Approved

PLANS OF Akansas' first rural telephone co-operative were approved recently when the Arkansas Public Service Commission gave the Central Arkansas Telephone Co-operative, Inc., approval to proceed with plans to build 200 miles of telephone line to serve about 450 customers in Hot Spring County.

The company has bought the present facilities of the Donaldson Telephone Co. and has obtained a $115,000 loan from the Rural Electrification Administration.

Formation of the co-op was the first under an act approved by the 1951 Legislature, which encourages the growth of telephone co-operatives in the state to develop unserved areas.

Dickey Co-op Gets State OK

ACQUISITION and operation of a telephone system in seven Southeastern North Dakota counties by the Dickey Rural Telephone Mutual Aid Corp. of Ellendale was approved recently by the North Dakota Public Service Commission.

Among other things, the commission approved the non-profit corporation's request for a $2,000,000 loan from the Rural Electrification Administration to get its extensive rural telephone program under way.

The Commission's action included

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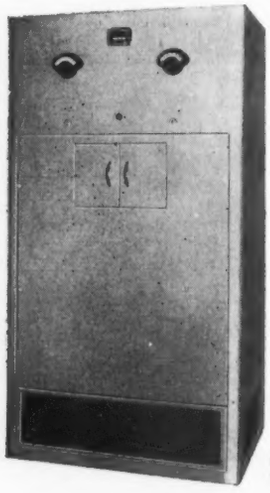

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the granting of a certificate of public convenience and necessity covering the concern's projected operations in Dickey, Sargent, Ransom, LaMour, McIntosh, Logan and Barnes Counties.

The Commission specified its action would not preclude the issuance of a certificate to other rural telephone lines in that territory, provided such lines following public hearing appeared to be in public interest.

It authorized the corporation to purchase the existing telephone properties of 14 small-town or rural exchanges, plus certain rural lines owned by the Northwestern Bell Telephone Co. The corporation, in addition, is authorized to build and operate rural telephone facilities for which switching service will be supplied by 11 Northwestern Bell exchanges.

These exchanges at which Northwestern Bell will furnish switching service are at Ellendale, Oakes, Cogswell, Kulm, Ashley, Fredonia, LaMoure, Verona, Marion, Lehr and Wishek.

Properties which the Commission authorized the Dickey corporation to purchase include those of the Dickey County Mutual Telephone Co.; New Bersina Telephone Co.; Line Six Telephone Co.; Milnor Rural Telephone Co.; Ellendale Rural Telephone Co.; Fullerton Telephone Co.; Antelope Telephone Co.; Shimmin Telephone Co.; Valley Telephone Co.; Litchville Telephone Co.; Kathryn Telephone Co.; Milnor Schuman Telephone Co.; Hample Crete Telephone Co., and the Baldwin Corporation.

The Commission said the corporation plans ultimately to serve 5,000 subscribers.

The following monthly rates were approved:

One-party business service, $6; two-party business, $5.25; rural multi-party business, $5.25; one-party residence, $4.25; two-party residence, $3.50; rural multi-party residence, $4.75.

Exchanges slated for new dial service immediately under the corporation's program, the Commission said, are Jud, Dickey, Merricourt, Venturia, Silverleaf, Ludden, Coleman, Nelvik, Wynn, Crete and DeLamere. Present magneto telephone service due for conversion to dial system later are Fullerton, Forbes, Milnor, Litchville and Kathryn.

New Tenn. Co-op

R. B. MILLER, retired naval officer and a pioneer in the movement to establish a rural telephone co-operative in Warren County, Tenn., has been elected chairman of a temporary board of directors for the Ben Lomond Rural Telephone Co-operative, Hillsboro, Tenn.

The election of Miller took place when a temporary board of directors was established to govern the co-op until a permanent organization can be selected by the entire membership.

855 residents of Warren and surrounding counties have made application for service by the new telephone company, Miller said and an application for an REA loan to finance the operation has already been forwarded to Washington.

In addition to Miller, the temporary operations board of the Ben Lomond facility is composed of J. H. Ashburn, vice-chairman, Hillsboro; Fred L. Hoover, secretary-treasurer, Viola; Dennis Brown, Beersheba Springs, and Howard McGregor, Hillsboro.

Dial for Alma, Ark.

R. L. THOMPSON, manager of the United Telephone Co., Alma, Ark., has announced that a $75,000 dial telephone system began operation in that city recently.

Thompson said that approximately 400 telephones have been connected in the Alma trade area and that about 400 more will be connected in the next few months.

New Missouri Co-op

ADEQUATE telephone service for some 4,000 rural families in parts of five northeast Missouri counties is the goal of co-operative association being organized at Lancaster, Mo.

Since the first of the year 1,000 farmers who either have no telephones or who are dissatisfied with their present telephone service have applied for membership. Each has deposited $10.

Crockett W. Berry, who farms near Glenwood, Mo., is the temporary president of the telephone group. He has had the assistance of Maurice Solomon, Lancaster, Mo., REA manager, and Lewis Seawell of Springfield, Mo., REA field representative, in conducting the initial meetings.

Organizing a telephone co-operative isn't as simple as organizing a REA group, says Berry, who is also on the board of directors of the electric firm. The REA lines were built exclusively for areas without electrical service. On the contrary, most communities have some semblance of telephone service. The farm resi-

(*Please turn to page* 26)

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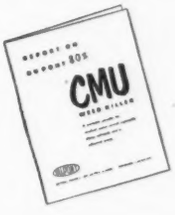

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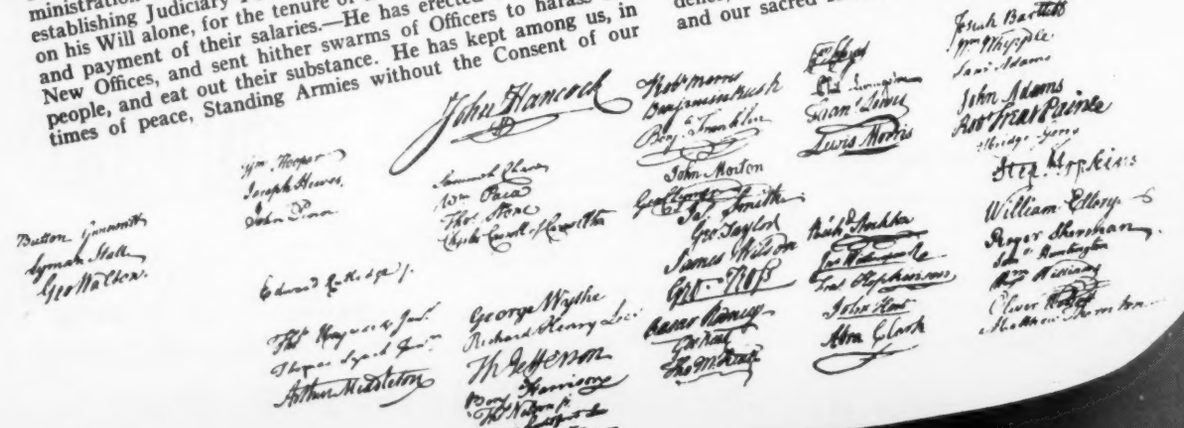
Prudence, indeed, will dictate that Governments long established should not be changed for light and transient causes; and accordingly all experience hath shewn that mankind are more disposed to suffer, while evils are sufferable, than to right themselves by abolishing the forms to which they are accustomed. But when a long train of abuses and usurpations, pursuing invariably the same Object evinces a design to reduce them under absolute Despotism, it is their right, it is their duty, to throw off such Government, and to provide new Guards for their future security.—Such has been the patient sufferance of these Colonies; and such is now the necessity which constrains them to alter their former Systems of Government. The history of the present King of Great Britain is a history of repeated injuries and usurpations, all having in direct object the establishment of an usurpations, all having these States. To prove this, let Facts be submitted to a candid world.—He has refused his Assent to Laws, the most wholesome and necessary for the public good.—He has forbidden his Governors to pass Laws of immediate and pressing importance, unless suspended in their operation till his Assent should be obtained; and when so suspended, he has utterly neglected to attend to them.—He has refused to pass other Laws for the accommodation of large districts of people, unless those people would relinquish the right of Representation in the Legislature, a right inestimable to them and formidable to tyrants only.—He has called together legislative bodies at places unusual, uncomfortable, and distant from the depository of their Public Records, for the sole purpose of fatiguing them into compliance with his measures.—He has dissolved Representative Houses repeatedly, for opposing with manly firmness his invasions on the rights of the people.—He has refused for a long time, after such dissolutions, to cause others to be elected; whereby the Legislative Powers, incapable of Annihilation, have returned to the People at large for their exercise; the State remaining in the mean time exposed to all the dangers of invasion from without, and convulsions within.—He has endeavoured to prevent the population of these States; for that purpose obstructing the Laws for Naturalization of Foreigners; refusing to pass others to encourage their migrations hither, and raising the conditions of new Appropriations of Lands.—He has obstructed the Administration of Justice, by refusing his Assent to Laws for establishing Judiciary Powers.—He has made Judges dependent on his Will alone, for the tenure of their offices, and the amount and payment of their salaries.—He has erected a multitude of New Offices, and sent hither swarms of Officers to harass our people, and eat out their substance. He has kept among us, in times of peace, Standing Armies without the Consent of our legislatures.—He has affected to render the Military independent of and superior to the Civil Power.—He has combined with others to subject us to a jurisdiction foreign to our constitution, and unacknowledged by our laws; giving his Assent to their Acts of pretended Legislation:—For quartering large bodies of armed troops among us:—For protecting them, by a mock Trial, from punishment for any Murders which they should commit on the Inhabitants of these States:—For cutting off our Trade with all parts of the world:—For imposing Taxes on us without our Consent:—For depriving us in many cases, of the benefits of Trial by Jury:—For transporting us beyond Seas to be tried for pretended offences:—For abolishing the free System of English Laws in a neighbouring Province, establishing therein an Arbitrary government, and enlarging its Boundaries so as to render it at once an example and fit instrument for introducing the same absolute rule into these Colonies:—For taking away our Charters, abolishing our most valuable Laws and altering fundamentally the Forms of our Governments:—For suspending our own Legislatures, and declaring themselves invested with power to legislate for us in all cases whatsoever.—He has abdicated Government here, by declaring us out of his Protection and waging War against us.—He has plundered our seas, ravaged our Coasts, burnt our towns, and destroyed the lives of our people.—He is at this time transporting large Armies of foreign Mercenaries to compleat the works of death, desolation and tyranny, already begun with circumstances of Cruelty & Perfidy scarcely paralleled in the most barbarous ages, and totally unworthy the Head of a civilized nation.—He has constrained our fellow Citizens taken Captive on the high Seas to bear Arms against their Country, to become the executioners of their friends and Brethren, or to fall themselves by their Hands.—He has excited domestic insurrections amongst us, and has endeavoured to bring on the inhabitants of our frontiers, the merciless Indian Savages, whose known rule of warfare, is an undistinguished destruction of all ages, sexes and conditions. In every stage of these Oppressions We have Petitioned for Redress in the most humble terms: Our repeated Petitions have been answered only by repeated injury. A Prince, whose character is thus marked by every act which may define a Tyrant, is unfit to be the ruler of a free people. Nor have We been wanting in attentions to our Brittish brethren. We have warned them from time to time of attempts by their legislature to extend an unwarrantable jurisdiction over us. We have reminded them of the circumstances of our emigration and settlement here. We have appealed to their native justice and magnanimity, and we have conjured them by the ties of our common kindred to disavow these usurpations, which would inevitably interrupt our connections and correspondence. They too have been deaf to the voice of justice and of consanguinity. We must, therefore, acquiesce in the necessity, which denounces our Separation, and hold them, as we hold the rest of mankind, Enemies in War, in Peace Friends.—

We, therefore, the Representatives of the united States of America, in General Congress, Assembled, appealing to the Supreme Judge of the world for the rectitude of our intentions, do, in the Name, and by Authority of the good People of these Colonies, solemnly publish and declare, That these United Colonies are, and of Right ought to be Free and Independent States; that they are Absolved from all Allegiance to the British Crown, and that all political connection between them and the State of Great Britain, is and ought to be totally dissolved; and that as Free and Independent States, they have full Power to levy War, conclude Peace, contract Alliances, establish Commerce, and to do all other Acts and Things which Independent States may of right do.—And for the support of this Declaration, with a firm reliance on the protection of Divine Providence, we mutually pledge to each other our Lives, our Fortunes and our sacred Honor.



OUR NATION'S DECLARATION *of* INDEPENDENCE

The Fourth of July, 1952 marks the 176th anniversary of the signing of the Declaration of Independence. To we Americans it means—or should mean—a great deal more than parades and fireworks. It's right and proper to celebrate this great day. But at the same time, we should pause to consider what the Declaration of Independence has accomplished in welding our free people into the greatest nation on the face of the earth.

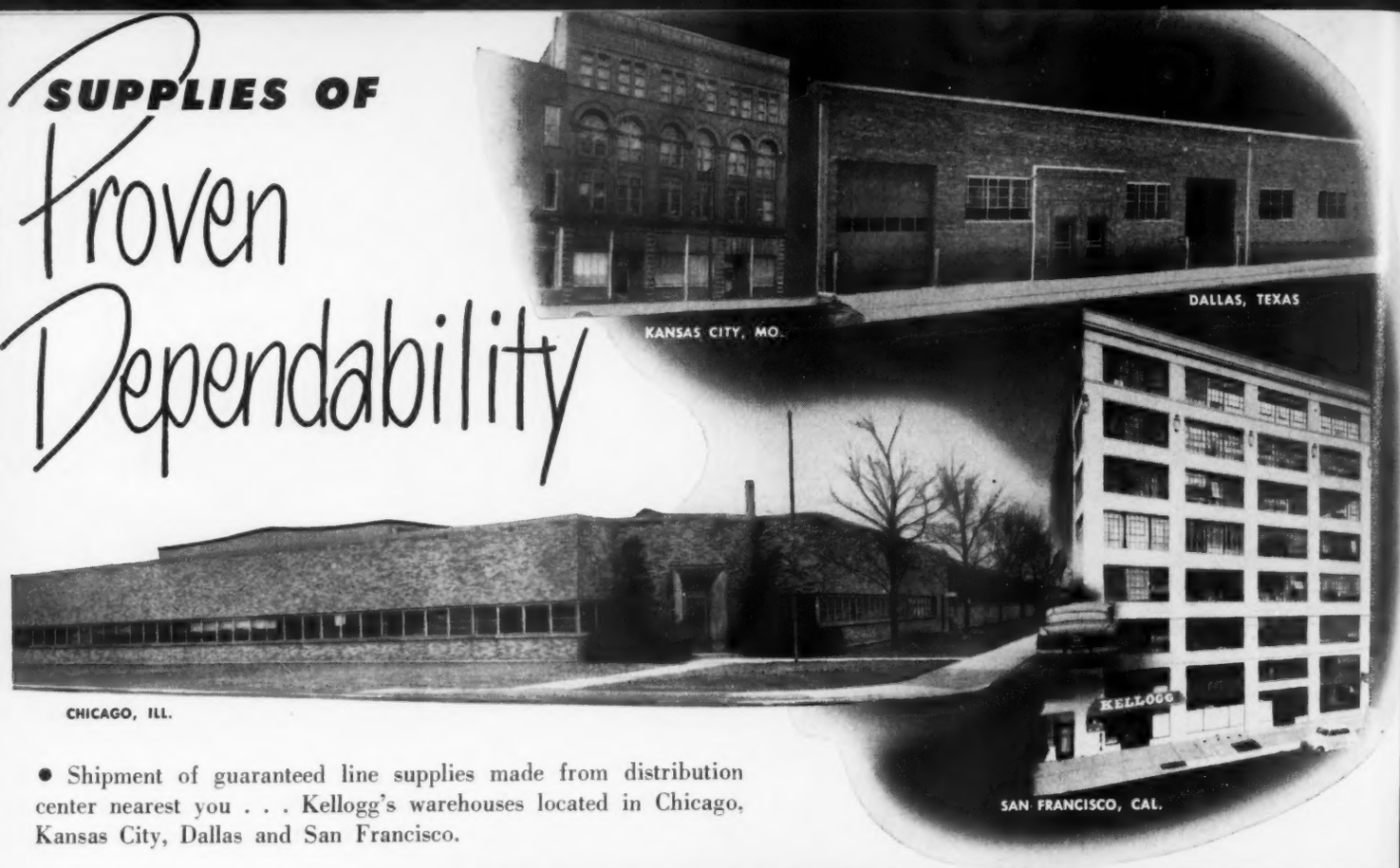
KELLOGG SWITCHBOARD AND SUPPLY COMPANY

6650 SOUTH CICERO AVENUE, CHICAGO 38, ILLINOIS

AN IT&T ASSOCIATE

An associate of International Telephone and Telegraph Corporation

SUPPLIES OF Proven Dependability



• Shipment of guaranteed line supplies made from distribution center nearest you . . . Kellogg's warehouses located in Chicago, Kansas City, Dallas and San Francisco.

The following nationally-known manufacturers of supplies for the independent telephone field are participating in the 1952 Kellogg Co-Operative Campaign.

American Creosote Works, Inc.

American Structural Products Co.

Ansonia Electrical Company

Bishop Manufacturing Corp.

Boston Woven Hose and Rubber Company

Churchill Cabinet Company

Continental Cross-Arm Co.

Cook Electric Company

Copperweld Steel Company

The Electric Storage Battery Co.

General Insulated Wire Works, Inc.

Gould-National Battery Inc.

W. A. Hammond Drierite Company

Indiana Steel & Wire Company

Kester Solder Company

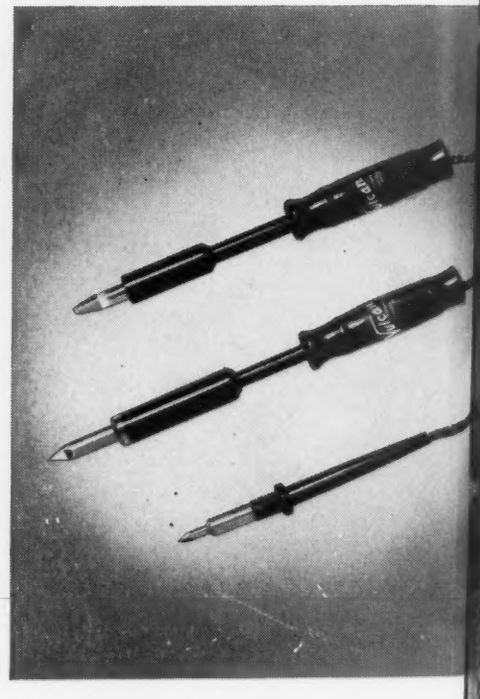
Lorain Products Corporation

T. J. Moss Tie Company

National Carbon Company
A Division of Union Carbide and Carbon Corporation

National Telephone Supply Co.

Reliable-Economical! "Eveready" "Columbia" "Gray Label" telephone dry cells give you dependability, plus economy thru higher sustained voltage and extra service life. Made by NATIONAL CARBON COMPANY, a Division of Union Carbide and Carbon Corporation.



You'll Find Soldering is Easy . . . workmanship neater with famous Vulcan Soldering Irons. Available in five sizes—either plug or screw tip. The high-powered heating element assures even proper heat and long satisfying service. Made by VULCAN ELECTRIC COMPANY.

Newman Manufacturing Company

Paragon Electric Company

Ray-O-Vac Company

Raytheon Manufacturing Co.

Reliable Electric Company

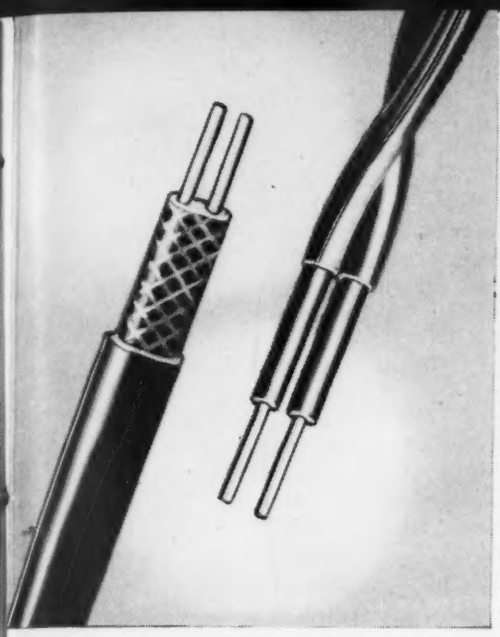
M. M. Rhodes & Sons Company

Schauer Manufacturing Corp.

Taca Cable Stripper Manufacturing Co.

Vulcan Electric Company

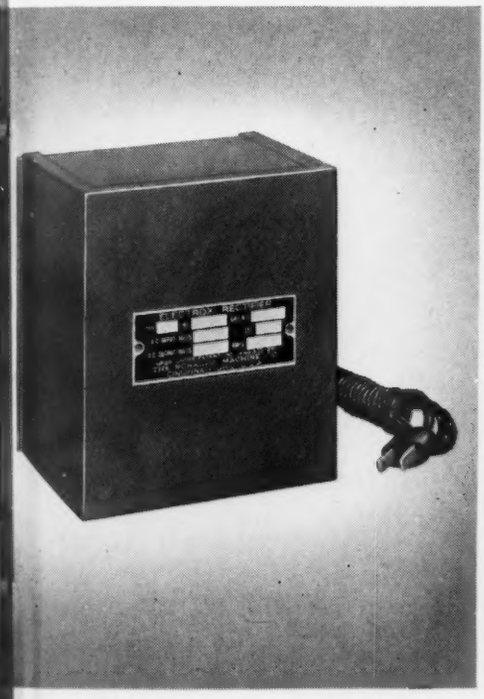
Weller Electric Corp.



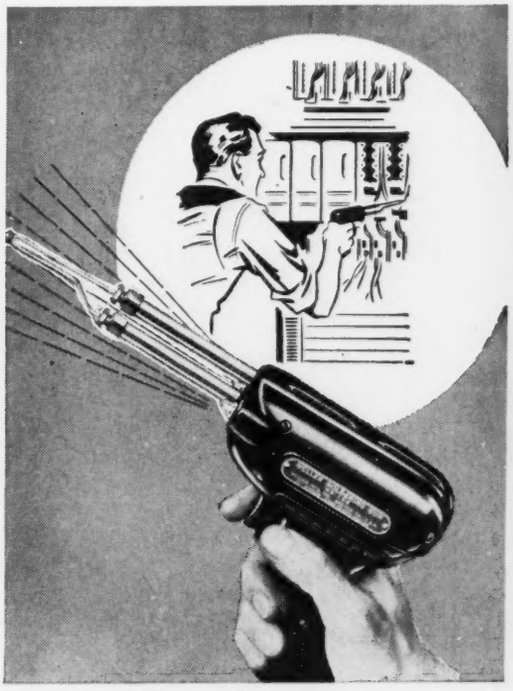
Long Service Life and Low Plant Costs go hand-in-hand with the installation of ENDURPRENE—The Neoprene Drop Wire available in both Copperweld and Bronze. This flexible and easy to handle wire is made by the GENERAL INSULATED WIRE WORKS, INC.

Improve Your System with Copperweld. Non-rusting Copperweld Line Wire provides the best conductance of any high strength conductor. Has great strength for safe, economical, long-span lines—plus the ruggedness to withstand severe weather. COPPERWELD STEEL CO.

Sealed Against Trouble! Communication equipment manufacturers demand Kester Plastic Rosin-core Solder, because it makes a perfect seal. Prevents high-resistance joints and intermittent open-and-closed circuits. Avoid trouble—use KESTER SOLDER COMPANY Solder.



Economical Power for Magneto Switchboards is provided by the Electrox PA-05004 dry-disc Battery Eliminator. Made especially for telephone work by SCHAUER MANUFACTURING CORP., operates from AC line, delivers humless DC. Relay cuts in dry cells if line fails.



For All Telephone Soldering—Original dual-heat Weller Soldering Guns handle all jobs. Instant heat saves time, power. Prefocused spotlights and longer reach—no wedges or flashlights. Tough, dielectric plastic housing. Made by WELLER ELECTRIC CORPORATION.

For Quick, Dependable Wire Splices—Bi-Seal, self-bonding, electrical insulating tape fuses into a solid, watertight, dielectric sheath when applied over wire and cable splices. Outstanding for low temperature applications. Multi-purpose tape made by BISHOP MFG. CORP.

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Talk to any old-timer on the job and he'll tell you Klein equipment is his choice for comfort—for safety—for service. Look for the familiar Klein trade-mark on pliers, safety straps and belts, climbers, grips and wrenches. Klein has been serving the electrical industry "Since 1857."

ASK YOUR SUPPLIER

Foreign Distributor: International Standard Electric Corp., New York

Write for your free copy of the Klein Pocket Tool Guide today!

"Since 1857"

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News Briefs

(*Continued from page* 20)

dent has to decide whether he prefers his present cheap rate of around $14 per year or whether he wants a satisfactory and dependable service at a somewhat higher rate.

The telephone organization, to be known as the Tri-County Rural Telephone co-operative, will be a separate corporation. Under terms of a 1949 amendment to the federal rural electrification act it will apply for an REA loan to cover 90 per cent of the cost of constructing a new telephone system.

The $10 deposits made by members represent down payments on the 10 per cent equity which they must have in the corporation. This is a departure from the parallel with the rural electrification set-up, under which the $5 membership fee was the only equity required.

The area for which the new service is proposed includes Schuyler, Scotland and Adair counties and parts of Putnam and Sullivan counties.

Berry estimates there are 4,000 potential members in the area. A proposed design for the telephone system will be made on the basis of engineering studies after contact meetings have been held throughout the area.

Berry says present thinking in the group is that the co-operative will have switchboards in Memphis, Downing, Lancaster, Queen City, Unionville, Novinger and Brashear. Location of 50 or more phones around other population centers would call for additional automatic exchanges.

At the present time most rural telephone lines in the area are mutually owned, either by subscribers on the individual lines or by mutual companies in the population centers. Three public utility corporations are in the field. Southwestern Bell Telephone Co. owns the Lancaster exchange, and for a fee provides switchboard service for farmer-owned lines in the surrounding rural area. Middle-States Telephone Co. has the exchanges at Queen City and Memphis, while the Downing exchange is owned by the Western Light and Telephone Co.

Negotiations will be made to purchase outright and rebuild some of the existing exchanges, and to work out agreements with others for switchboard service and long distance connections.

All plans for the cooperative are subject to approval of the Missouri Public Service Commission.

"Tid-Bits"

IN ST. JOSEPH, MO., a tax consultant absent-mindedly deposited a $5 gold piece in a nickel coin telephone slot, frantically called the operator when he realized his mistake. The coin collection department rushed a collector to the scene, and sure enough, gold—hard and cold.

IN ST. LOUIS, MO., a woman reporter asked the six-year-old to please call her mother to the telephone. "She isn't here", came the answer, "but my daddy is. He's lying down." She was then asked to call him to the telephone. "Telephone, daddy!" the little girl shrieked. "Put on your clothes—it's a lady."

IN NEW YORK Commentator Galen Drake told of a small boy going to bed. "What are prayers, mommy?" the youngster asked. "Why, they're messages to God, that's what they are." The boy thought this over and said, "Oh, and we send them at night to get the cheaper rates, huh?"

IN NEW YORK a long distance operator answered a signal from a customer who said, "I want Skamokawa, Wash." "How do you spell that please?" the operator asked. "Good heavens, operator, if I could spell it, I'd write."

EXPANSIONS:

ADRIAN, MICH.—Barring unforeseen circumstances, Adrian will have a completely automatic telephone system in 1953, according to Irwin L. Fry, district manager of the Union Telephone Co.

Dial telephones for Adrian were last discussed in 1950 when the company set its goal for 1953. The plan became a definite promise when on Dec. 3, 1951, the company announced the improvement would be put into effect when the Michigan Public Service Commission approved a $1,250,000 expansion program.

PECOS, TEXAS—Ralph Sparks, owner of the Pecos & Northwestern Telephone Co., has announced signing of contracts for new automatic equipment.

"The tremendous growth of Pecos recently has placed a burden on our

service," Sparks said, "but equipment now being installed will more than take care of increased demands until the change-over to the dial system in May, 1953."

Pecos & Northwestern company has served Pecos, Toyah, Balmorhea and Barstow for 33 years.

INCORPORATIONS:

TRIBUNE, KANS.—The Sunflower Telephone Co. recently completed incorporation procedures. The authorized capitalization is $50,000. Stock is owned by Mr. and Mrs. Puckett of Jetmore, Kans., and Mrs. Robert Ervin of Leoti, Kans.

Resident agent Howard E. Puckett of Jetmore announced the company plans an improvement and extensive expansion program in Wichita and Greeley counties.

According to Mr. Puckett, the G & W Telephone Co-operative which was organized to take over telephone systems in Wichita and Greeley counties may be disbanded.

SALES & TRANSFERS:

DERBY, KANS.—The Derby (Kans.) Telephone Company, Inc., has been granted authority to transact business in the state of Kansas by the Kansas Corporation Commission.

The commission also gave permission for the El Paso Mutual Telephone Co., predecessor of the new firm, to transfer its telephone right and property to the new corporation.

E. P. Butterfield is president of the company. James D. Alley is vice-president, and Clyde Means is secretary-treasurer. The company will serve Derby and surrounding areas.

GALENA, MO.—M. H. Hight and his son, Earl E. Hight have been authorized by the Missouri Public Service Commission to purchase the Galena Telephone Co., from Mr. and Mrs. L. A. Neal.

HUNTSVILLE, MO.—J. Carter, of Clifton Hill, Mo., has purchased the Huntsville Telephone Co. from Mr. and Mrs. J. O. Kent, who owned the company for the past 26 years.

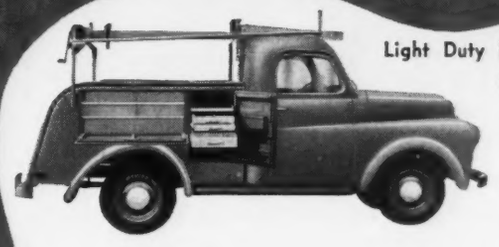
HILLSBORO, TENN.—Melvin Gray has sold the Hillsboro telephone exchange to J. H. Ashburn, Harvey Hamby, Howard McGregor, and Sam Brashear, who plan to lease or sell the plant and lines to a new co-op now being organized to serve rural territories in Grundy, Warren, and Franklin counties.

YORK-HOOVER

IS PROUD TO ANNOUNCE

THAT 1952 IS ITS

60th Anniversary Year



Light Duty Public Utility Service Body

Heavy Duty Line Construction Body

We have attained this milestone of progress through the loyalty and confidence of our customers . . . plus strict adherence to an iron-clad policy established in 1892. That policy is to produce only quality merchandise at a fair price . . . at all times . . . and under any conceivable economic condition.

Consistent with these policies and objectives, York-Hoover has grown, in 60 years, to be a virile, progressive manufacturing organization . . . a great family of fine craftsmen . . . whose contribution to the industries we serve is reflected in the cost-saving efficiency of York-Hoover Truck Bodies wherever they are used.

We are grateful for the privilege of serving you during the past 60 years and will continue to serve you faithfully during the years to come.

1952...OUR 60TH ANNIVERSARY YEAR

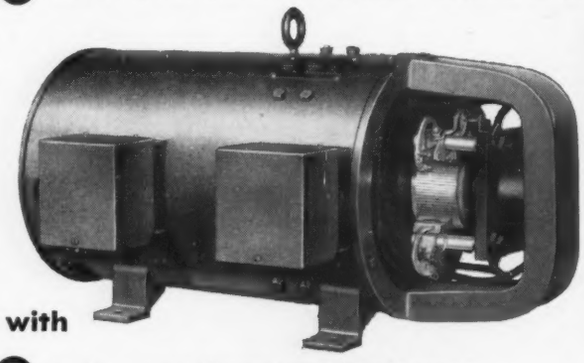
YORK-HOOVER CORPORATION

YORK, PENNSYLVANIA

FOR *Time-Proved* BATTERY-CHARGING PERFORMANCE

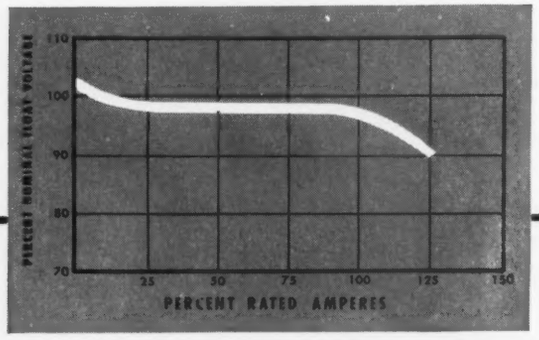
Specify

1 E. P. Diverter-Pole Motor-Generators



with

2 Inherent Constant Voltage . . .



Constant voltage delivered by E. P. Diverter-Pole Motor-Generators serves three important functions:

A—DECREASES RELAY MAINTENANCE. Keeping the voltage from rising too high helps to prevent "slapping" of the contacts that may result in misalignment, pitting and burning, and preserves the sensitive adjustment of the relays. High-coil current . . . with accompanying insulation breakdown, shorting and burning-out . . . is avoided.

B—INCREASES BATTERY LIFE. Operating records of many exchanges show that the E.P. Diverter-Pole Battery Charger increases battery life from six to fourteen years. High battery temperature, excessive gassing, and undue breaking down of the active cell material are prevented to assure the longest possible battery life.

C—IMPROVES VOICE TRANSMISSION. To assure satisfactory voice transmission, the Battery Charger must maintain the output voltage of the battery as close as possible to a constant value. Transmitters may become noisy if they are subjected to an excessively high voltage, and may have to be replaced because of permanent damage.

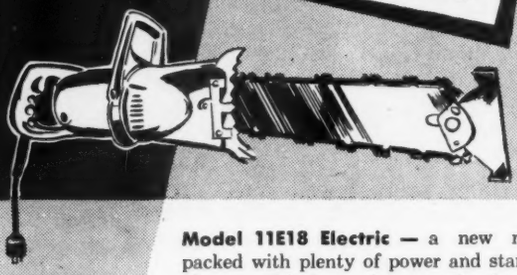
Write for Bulletin 209

EP

THE ELECTRIC PRODUCTS CO.

1729 CLARKSTONE RD., CLEVELAND 12, OHIO, U. S. A.

MALL CHAIN SAWS FOR EVERY CUTTING NEED AND ANY POWER SOURCE



Model 11E18 Electric — a new model packed with plenty of power and stamina. Has an 18-inch cutting capacity but can saw timber twice its bar length. Equipped with a fingertip trigger switch built into the handle. Operates off standard 115 volt AC-DC. or off a 1200 watt generator.

In stock for immediate shipment.

One of a complete line supplied by Buckeye

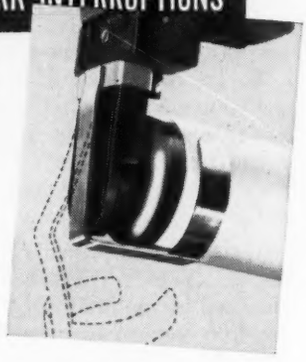
write for free catalog

BUCKEYE TELEPHONE & SUPPLY CO.

1250 KINNEAR RD. COLUMBUS, OHIO

STOP! INJURIES AND WORK INTERRUPTIONS

from falling fluorescent-tube accidents



Fluorescent tubes sometimes fracture. Vibration and shock may release them from fixtures. Wherever fluorescent lighting is installed there is the possibility of physical injury and property damage resulting from falling tubes.

Don't wait for accidents to happen. For a few cents each you can keep tubes in place, prevent falling, insure against poisoning, contamination and spoilage, avoid injuries, work interruptions and loss of time.

Install Den-El fluorescent lamp guards, easily and quickly, with a screw driver. Permanent, positive protection. Stainless steel. Easily sprung aside for relamping or cleaning. Two guards for each lamp.

Types for all fixtures, also tubes in series

For 40W tubes, per C **$17.00**

For 100W tubes, per C **$20.50**

ORDER TODAY DIRECT

Ask for bulletin, also complete General Scientific catalog of hundreds of other safety equipment items

All orders shipped promptly from Philadelphia

GENERAL SCIENTIFIC EQUIPMENT CO.

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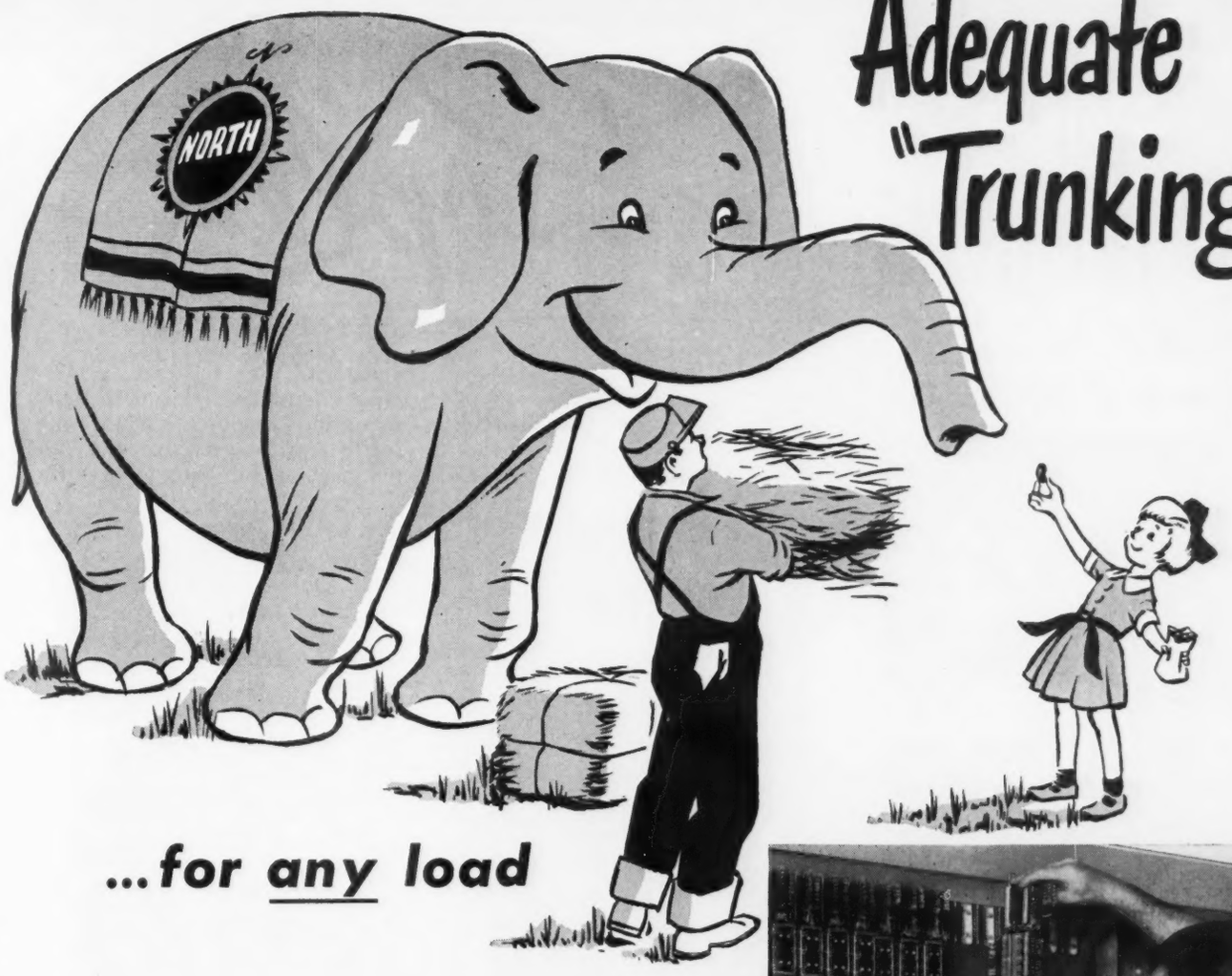
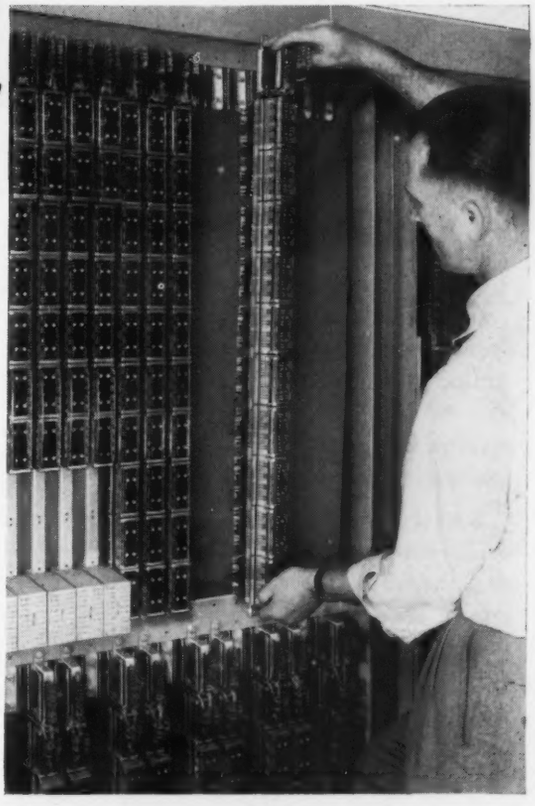
SAFETY EQUIPMENT FOR EVERY HAZARD

Adequate "Trunking"



...for any load

Time was when an exchange with 10% trunking was adequate in almost any community to handle any traffic its subscribers would throw at it, barring extreme emergencies. But communities change. Their pulses may quicken with new business to the point where a 10% system gets high blood pressure for sure, unless it is designed for growth. Progressive engineering keeps North "All-Relay" in step with changing characteristics of the nation's voice. Simplified methods of adding linkage enable you to stretch line equipment to its maximum usefulness. Without having to install elephantine equipment to handle peanut traffic you still can reach out for the big stuff—if and when: Let a North Engineer show you why



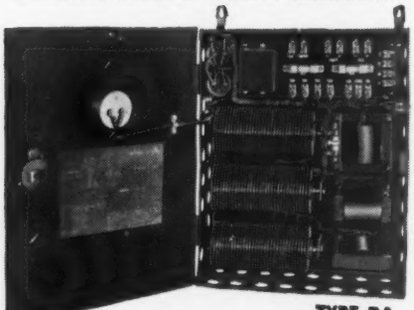
NORTH "ALL-RELAY" SYSTEMS ARE AS EXPANDABLE AS YOUR NEEDS

THE NORTH ELECTRIC MANUFACTURING COMPANY

Originators of ***ALL RELAY*** *Systems of Automatic Switching*

655 South Market Street, Galion, Ohio, U.S.A.

DEPENDABLE POWER
For PAX and PBX SYSTEMS
Electrox*
CONSTANT VOLTAGE BATTERY ELIMINATORS



TYPE RA

The most economical telephone power supply is an Electrox Battery Eliminator

Powered from your regular 110-volt lighting system.

Electrox Eliminators provide smooth, hum-free D.C. of required voltage — eliminating batteries.

Automatic operation. Output voltage remains practically constant, regardless of current drain. When desired, provision can be supplied to switch to emergency power source automatically.

Battery chargers and battery eliminators available in sizes and capacities to meet every power requirement.

See your Electrox Jobber. Write for free Bulletin 1465.

*T.M. Reg.

RECTIFIER DIVISION
SCHAUER
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4516 Alpine Ave. Cincinnati 36, Ohio

People

HOWARD W. SPAHNLE has been appointed commercial engineer of The Lincoln (Neb.) Telephone & Telegraph Co. He will be a member of the staff of the general commercial superintendent. Mr. Spahnle joined the company in 1932 as a salesman in the Lincoln business office. During 1935 and 1936 he was assigned to the Hastings office, returning to Lincoln as a commercial representative. He became directory compilation supervisor in 1946, directory manager in 1950 and sales manager in 1951.

Howard W. Spahnle, commercial engineer of the Lincoln (Neb.) Tel. & Tel. Co.

PAUL E. SULLENTROP has been appointed purchasing director of the Western Light & Telephone Co., with offices at Great Bend, Kans. Mr. Sullentrop succeeds the late W. E. TAYLOR.

HOBURG B. LEE has been named assistant chief of REA's Telephone Engineering Division, which will begin functioning on July 1. A native of Washington, D. C., he is a graduate of George Washington University with a degree in electrical engineering. He joined REA as a student engineer in 1936. During the war, he saw active duty with the Seebees for three years. He served as utilities officer and engineering officer with a battalion engaged in the construction of the Naval Air Station in Hilo, Hawaii, and the Naval Supply Depot at Guam. At the time of his promotion, Mr. Lee was section head of the Engineering Division. The new Telephone Engineering Division, which will be headquartered in Washington, will be responsible for pre-loan engineering, construction engineering and technical operations and maintenance advisory service to borrowers.

Hoburg B. Lee, assistant chief of REA's Telephone Engineering Division.

WILLIAM MORRISON has resigned as president of the Hager City (Wis.) Telephone Co. and J. P. PETERSON has been named as his successor. Morrison had served for about 35 years as president, secretary and director.

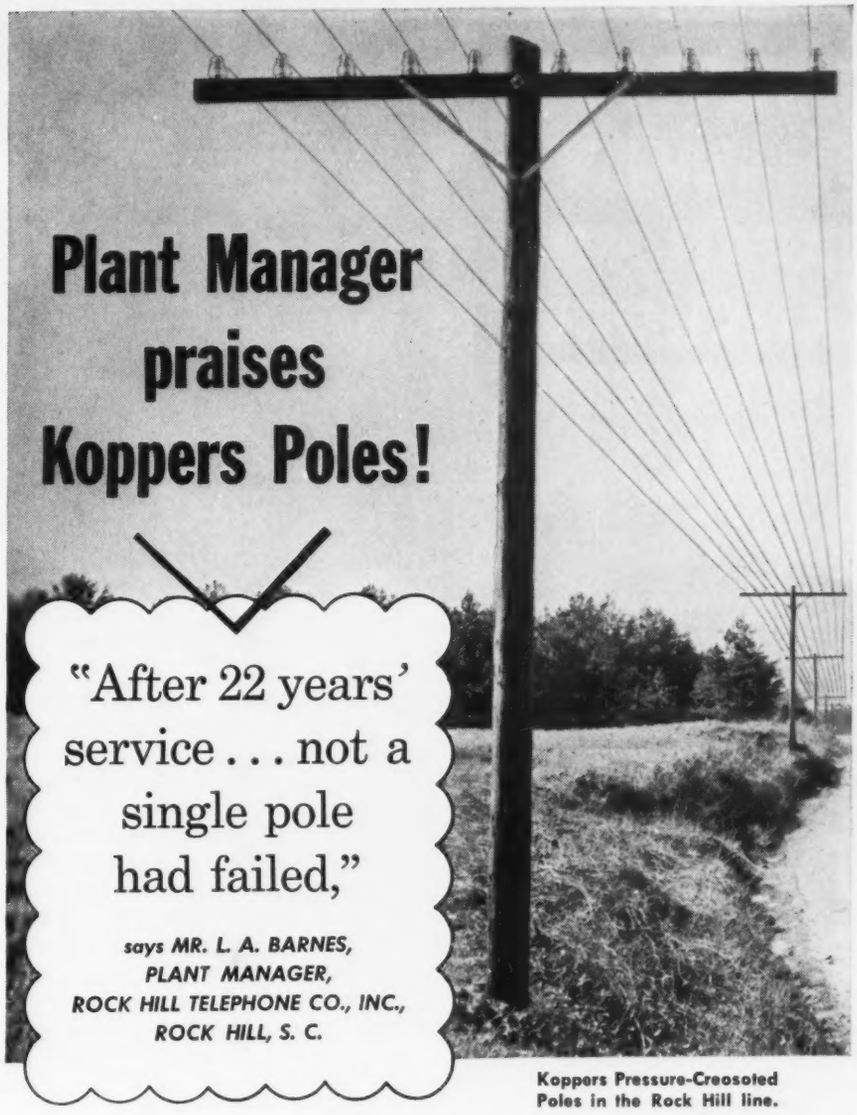
Other officers of the Hager City Company are: J. NELSON, vice

president; MRS. EMMA LINDQUIST of Red Wing, secretary-treasurer; and BEN MANN, REUBEN MOLANDER,, JOHN KIND and CHESTER JOHNSON, directors.

K. BRUCE MITCHELL has been appointed vice president in charge of international communications for the Western Union Telegraph Co. Mr. Mitchell has been director of international communications since 1947. He began his 31-year career with Western Union at Lincoln, Neb. working nights as operator and later as manager while attending the University of Nebraska. He graduated in 1925 with a B. S. degree in business administration. While sales manager for Western Union at Washington, D. C., Mr. Mitchell served as liaison between Western Union and the White House taking many trips with Presidents Hoover and Roosevelt. In 1934 he was appointed superintendent in New Jersey and Connecticut and a year later was named sales manager for the 14-state territory of Western Union's Eastern Division. In 1943 he was made superintendent at Boston, and in 1946 became executive representative in charge of international communications. He was appointed director of international communications in 1947.

SIDNEY R. CURTIS, former vice president and general manager of the Radio-Television Division of the Stromberg-Carlson Co., Rochester, N. Y., has been appointed vice president in charge of government contracts. In connection with Mr. Curtis' appointment, President Tait said, "The demands of the nation's defense program on our personnel and facilities are now so great that by the end of the year defense work will account for half our total volume, with indications that the proportion may be even higher next year. Government contracts, therefore, have become of No. 1 importance to the company, and we have relieved Mr. Curtis of his duties in respect to the Radio-Television Division so that he may head up this most important phase of our business."

PHILIPS B. PATTON was elected vice president of the Lenkurt Electric Co., Inc., San Carlos, Calif., at a recent meeting of the board of directors of the corporation. Before joining Lenkurt as field engineer in 1948, Mr. Patton had been technical coordinator of sales and


Plant Manager praises Koppers Poles!
"After 22 years' service . . . not a single pole had failed,"
says MR. L. A. BARNES, PLANT MANAGER, ROCK HILL TELEPHONE CO., INC., ROCK HILL, S. C.

Koppers Pressure-Creosoted Poles in the Rock Hill line.

BACK IN 1930, the Rock Hill Telephone Company purchased and erected, in their Rock Hill-Lancaster toll line, a quantity of Koppers Pressure-Creosoted Poles. After 22 years' service, an inspection was made jointly by the telephone company and Koppers Company, and it was found that not a single pole had failed due to deterioration.

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Chance 8-ways expand quickly—there are no bolts to cut—the holding wires shear with a single blow of the expanding bar. There is no wasted area . . . the weight of the load is carried by eight blades instead of only two or four.

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CS2-3

A·B·CHANCE CO·

CENTRALIA, MISSOURI

SAN FRANCISCO, CALIFORNIA

Phillips B. Patton, recently elected vice president of the Lenkurt Electric Co., San Carlos, Calif.

engineering functions of the Mobile Communications Division of Farnsworth Television & Radio Co. Previously he had been chief of the radiotelephone and telegraph section of the Federal Communication Commission's engineering department, common carrier branch, and had held positions with Pan American Airways and with Western Union.

At Lenkurt he has held the positions of sales engineering manager and commercial manager, and recently became a member of the company's board of directors. Mr. Patton will continue with his present administrative duties as commercial manager in addition to his new duties as vice president of the company.

ROBERT J. LA FORTUNE has been appointed representative of the Reilly Tar & Chemical Corp., in the Oklahoma, Arkansas and Colorado territory for protective coatings, creosote oil and roofing pitch. Mr. La Fortune is a native and resident of Tulsa. He was trained in Petroleum Engineering for two years at the University of Tulsa and went on to receive his B. S. in Chemical Engineering at Purdue.

CHARLES I. ZIEGLER has been elected vice president and general manager of the Body Division, York-Hoover Corp., York, Penna.

Mr. Ziegler began his career with York-Hoover in 1921 as a salesman in the Body Division. In 1930 he was promoted to sales manager and in 1941 to assistant manager of that division. He served in this capacity until 1946 when he was promoted to assistant to the president. Four years later he was elected a vice president of the company and maintained his position as assistant to the president until his recent promotion to vice president and general manager of the Body Division.

Charles I. Ziegler, vice president and general manager of the Body Division, York-Hoover Corp., York, Pa.

CLIFFORD J. HUNT, former sales manager of the Radio-Television Division of Stromberg-Carlson Co., Rochester, N. Y., has been appointed general manager of that division. Mr. Hunt, who has been with Stromberg-Carlson for 23 years, has been general sales manager of the Radio-Television Division for the past three years.

Robert J. LaFortune, representative of the Reilly Tar & Chemical Corp. in Oklahoma, Arkansas and Colorado.

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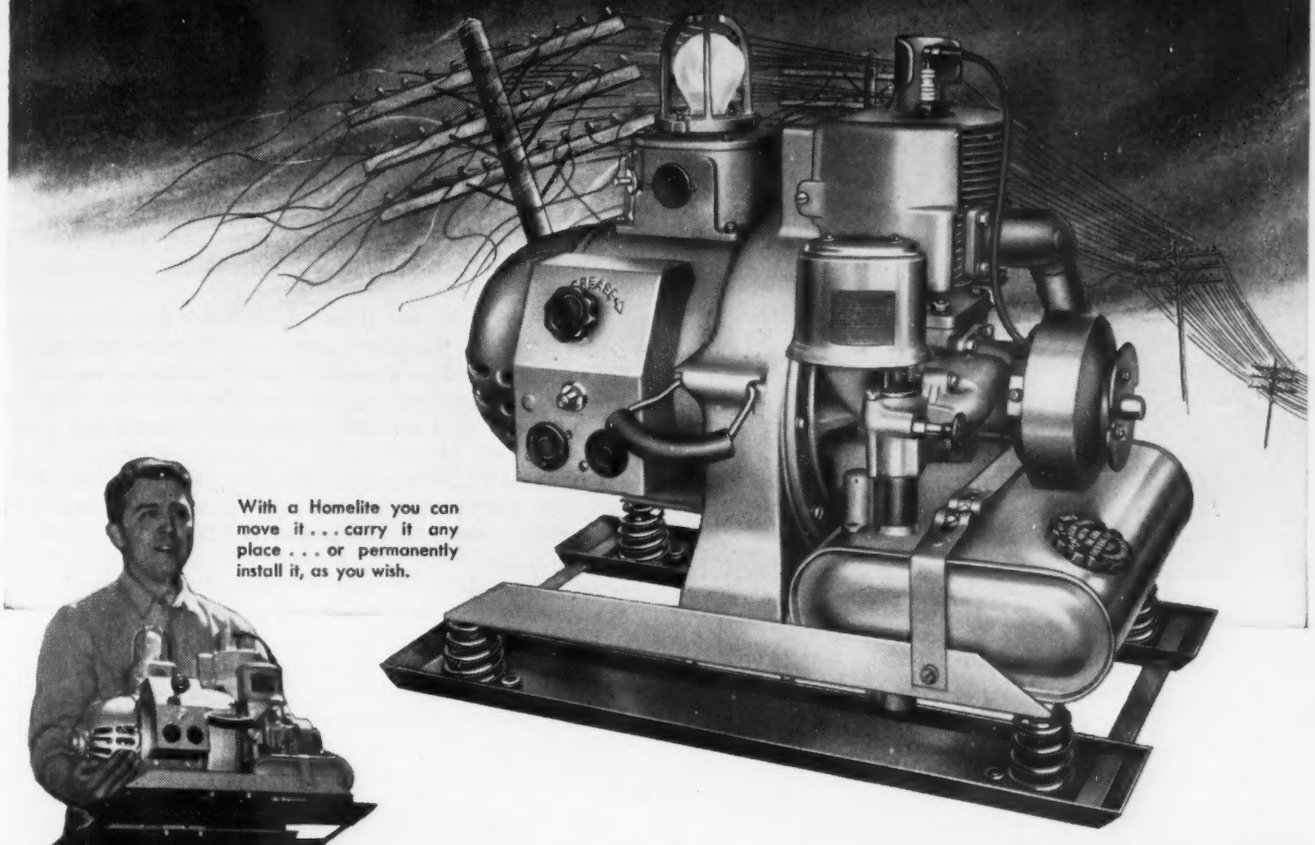

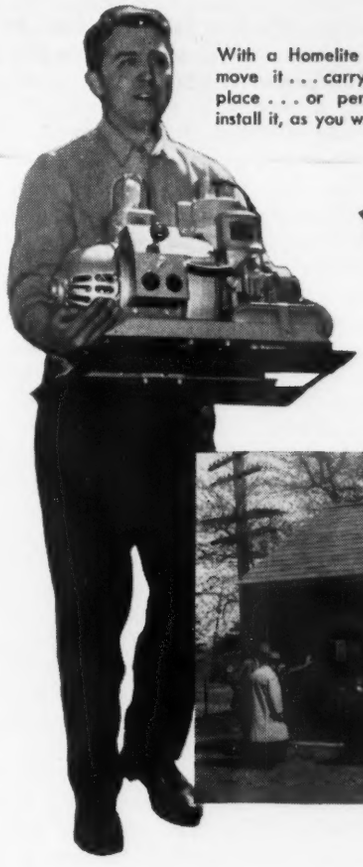

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"Jack Crowley Starts 61st Year As Telephone Man"

By JOHN S. WITHY

SIXTY YEARS spent in the same industry is a record for any one man to hold, but it becomes especially significant when those years were spent as Jack Crowley has spent them.

Jack has been dubbed "the friend of the small telephone company", and he has probably put more Independent telephone men on the road to successful management of their properties than any other person in the midwest area.

Jack, or (John) C. Crowley, Jr., as he's known more formally, wound up 60 years in the telephone business on May 5, and promptly started his 61st year by heading for the executives conference of the U. S. Independent Telephone Association at Colorado Springs, Colo.

And just to show that that was nothing for the 75-year-old secretary of the Minnesota Telephone Association, Jack immediately loaded a fresh pair of pajamas in his grip upon arrival home in St. Paul, and started out to sit in on 32 rate case hearings staged by the Minnesota Railroad and Warehouse Commission for small Independent companies throughout the state.

The veteran Minnesotan will go into semi-retirement this summer, when Keith Vogt, chief accountant of the Nebraska State Railway Commission, arrives to take over the secretary's job. But you can be sure Jack won't wash his hands of the telephone business. In the first place, association directors voted earlier this year to retain him for five years on a consulting basis. And in the second place, you don't get the business out of your blood that easily. Getting back to that unofficial "title" Jack carries, it would take quite awhile to count all the names of telephone men who have come to Jack for advice—and who followed it to successful management.

Just recently, for example, Jack was in a northern Minnesota town when the local telephone man asked him to drive out in the country and inspect his newly-rebuilt rural lines.

"You ought to see them, Jack," the telephone man said. "After all, that letter you wrote 10 years ago jarred me into action. You told me I should make up my mind whether I wanted to stay in the telephone business or get out—and if I wanted to stay in I should get busy and fix up my plant."

The plant was fixed, along the plan Jack recommended, and that telephone company is now a fine example of a profitable, modern Independent enterprise in a small town.

Jack has always firmly believed that the Independents can do the job in the rural areas as well—or better—than anybody else, and he's convinced that satisfied subscribers are willing to pay the price for good telephone service if the plant is kept up to date and complaints are handled speedily. Telephone men who have followed his suggestions have usually learned he's right.

"These aren't the horse and buggy days and more." he will say, "and the people don't want horse and buggy telephone service. They want modern service, and they're willing to pay more for this service if that's what they get."

It is quite appropriate that Jack was born on August 15, 1876, because that's the year Alexander Graham Bell invented the telephone. And it was also quite appropriate that Jack's father was superintendent of construction for the Chicago Telephone Company, because it was his dad's influence that encouraged the 15-year-old boy to get his first job in the telephone industry.

That job in Chicago was as water boy at $1 a day for a conduit-laying crew, and Jack stayed with it until he was promoted to tool clerk. Later he became a helper in the engineering department, and in the spring of 1893 Jack was a cable splicer's helper.

Jack went on from there to work for Western Telephone Construction Co., in Chicago, and helped build new telephone plants at Rochelle, Ill., Alpena, Mich., Grand Rapids, Mich., Eau Claire and Chippewa Falls, Wis. In 1898, when he was in Eu Claire, two significant things happened. The Wisconsin Valley Telephone Company retained him as manager of their Eu Claire and Chippewa Falls exchanges, and he married his wife, who has been with him all these years and who has become almost as much of a telephone expert as her husband.

In 1899 Jack made another move, this time to the head of the lakes. He went to Duluth, Minn., and Superior,

Photos on this page show Secretary Crowley in action at some of the many conventions he has supervised during his tenure as secretary of the Minnesota Telephone Association.

Wis., as superintendent of construction for Stafford and Evans, contractors, at new plants there, and when the work was completed stayed on as general superintendent of Zenith Telephone Company in Duluth and manager of Peoples Telephone Company at Superior.

That "visit" in the north country continued until 1922, during which time Jack became a civic leader and a man whose knowledge of the telephone industry was respected in both Minnesota and Wisconsin. He did telephone industry representation work before the legislatures of both states, and became well known in affairs of the U. S. association.

Jack made his final move in 1922, coming to St. Paul to take over a tottering Minnesota Telephone Association. He'll recount how they had to "pass the hat" to keep the office going, and how there were less than 100 members out of a potential 400 Independent operating companies at the time.

Today the association is on a considerably more solid basis, and 210 of the state's 276 Independent companies are members. All that time Jack has been at the helm as secretary, and the association has grown to one of the most influential in the nation. The annual convention draws 500 to 600 people.

"Telephone people have a real story to tell, because the heritage of our industry is a wonderful one," Jack says. "By telling that story, and working together to extend and improve service, the industry can continue to grow and do the communications job that is expected of it."

One only needs to visit Jack for a few minutes, and he knows there's a vast storehouse of knowledge about the telephone industry, interspersed with all sorts of humorous anecdotes, sitting across the desk from him. But one question always pops to mind before the interview is over with.

Why is the "Jr." tagged on the name?

Well, actually, Jack's dad didn't die until last year at the age of 94. Jack's called himself "Jr." all that time, so why change now?

And why should he, when John C. Crowley, Jr., has a fresh and enthusiastic outlook about the telephone business that should be the envy of many men who are much, much younger—in years if not in spirit!!—THE END.

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Shown above: Outdoor Booth—Cat. No. 17-S, Type 1, and Paystation Sign—Cat. No. S-6853.

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OVER 45 YEARS SERVICE TO THE TELEPHONE INDUSTRY

Editorial

The Growth and Strength of Independent Telephony

IN THE RUSH and scramble of attempting to provide, during the past several years, more and more telephone service to meet public demand, even some telephone people may have overlooked the size and significance of the growth that is taking place in the Independent telephone industry.

It may be surprising, for instance, to realize that, during the ten years from the end of 1940 to the end of 1950—the latter being the latest date for which complete statistics are now available—The number of Class A Independent telephone companies practically doubled.

During that period, Class A companies were the largest telephone companies, being those with average annual revenue of $100,000 or more.

At the end of 1940 there were 133 such Independent companies. At the end of 1950 there were 256—an increase of 93%.

A very few of these new Class A companies were created by mergers of smaller companies. The remainder were created by increase of gross revenues.

Of course many of the Independent Class A companies have revenue of much more than $100,000 a year. About 60 of them gross more than $1,000,000 a year, and about 30 of them gross more than $2,500,000 a year. Eleven of them have gross revenue of more than $5,000,000 a year.

All of these Class A Independent companies are substantial businesses, therefore. And, in addition to the 256 such companies at the end of 1950, there were 68 Class B companies—with average annual revenue of from $50,000 to $100,000—of which some 30 companies had revenues almost sufficient to put them in Class A.

A number of these are probably Class A companies now.

One result of this growth of Independent telephone companies is this: At the end of 1940 about 29% of the some 12,300 Independent telephone exchanges in the country were operated by Class A and Class B companies.

At the end of 1950 about 37% of these exchanges were operated by Class A and Class B companies.

It seems to us that it is of benefit to all Independent telephone companies, large and small, that there be a substantial number of Class A and Class B Independent companies.

These companies form what is sometimes called the "hard core" of a group.

It is a recognized fact that, in practically every industry, the larger units or companies must carry the bulk of expense of industry-wide projects, such as associations.

Also, that the larger units must supply the bulk of the manpower, talent and broad experience in the carrying on of industry-wide institutions.

We believe most telephone people will agree that, in the telephone business, the larger companies have always been as helpful as they can be to the smaller companies, not only through industry organizations such as associations, but also directly in many cases.

It is quite certain that, if telephone growth continues at anything like the present rate, the number of Class A Independent companies will increase.

We think this situation has added and will continue to add strength to the entire Independent telephone industry.

The 256 Class A Independent companies at the end of 1950, had more than 4,600,000 company-owned stations. They had telephone plants—not including current and sundry assets—of the undepreciated book value of almost 900 million dollars. Their combined operating revenues for the year 1950 was more than 260 million dollars.

This is a sizeable "hard core" for any industry.

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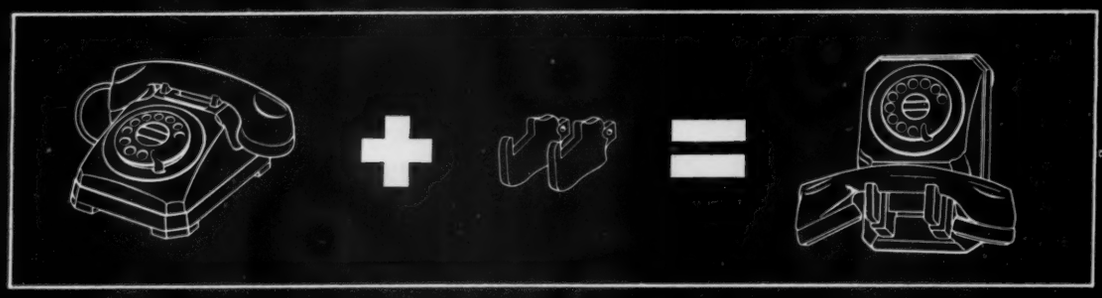

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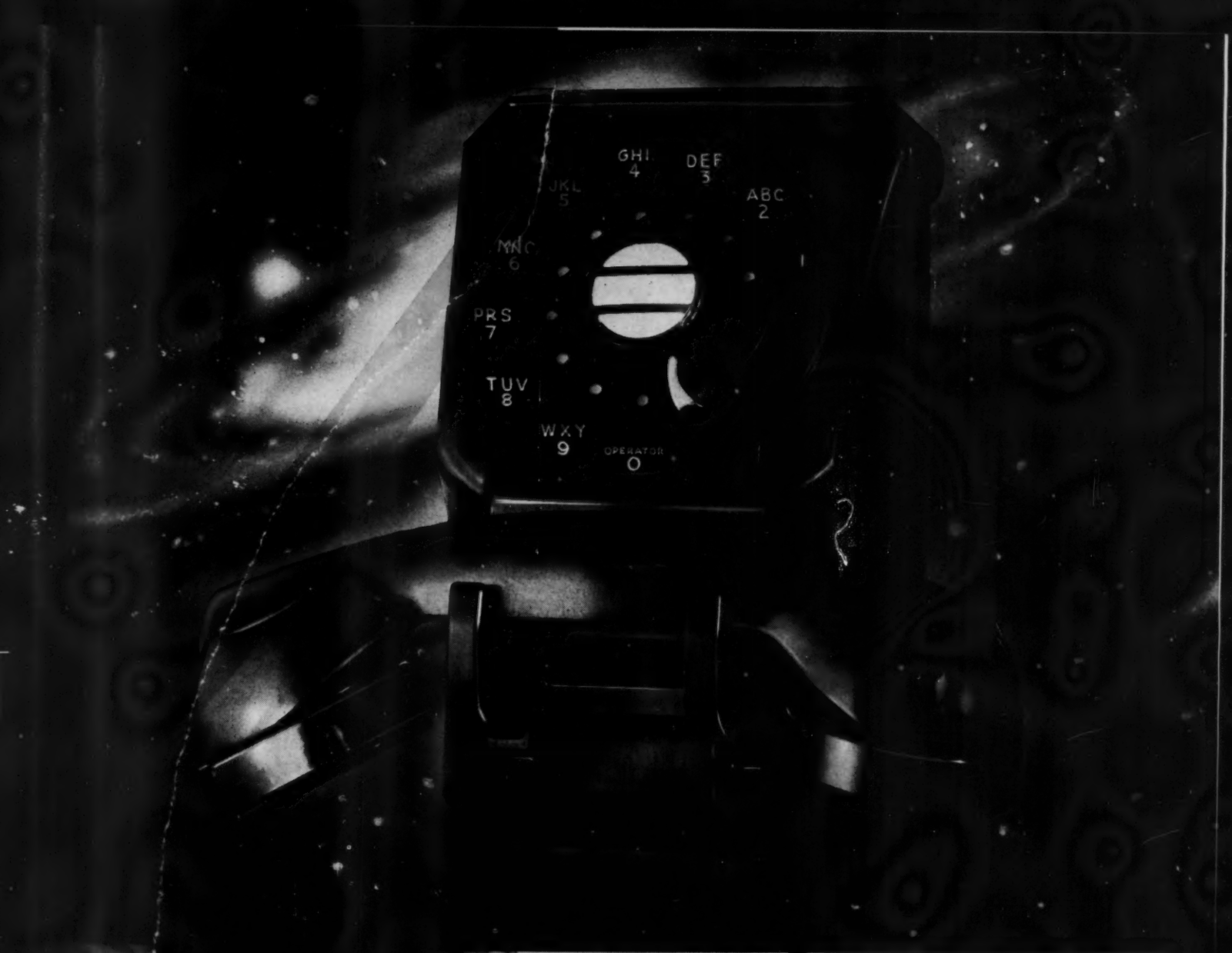
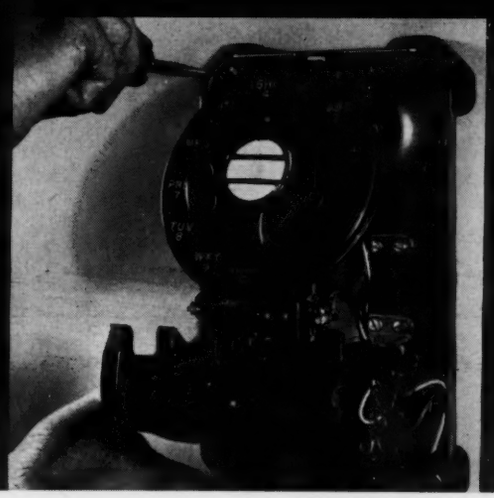


3. Rotate the dial 180°—still using your *only* tool—a screwdriver. Extended number plate moves right along with the dial.



4. Fasten the base to the desired wall position. Four screws for this use are included in the conversion Package Assembly.

5. Replace the housing, attaching the molded-in clip to a lug in the base, drawing down the housing. Lock with one screw.

Existing telephone companies should take lead in providing rural telephone service, REA Administrator Wickard states in interview on rural telephone program.

Washington Bureau Reports

By ROLAND DAVIES and FRED HENCK

EXISTING telephone companies should take the lead in providing rural telephone service, but if they cannot see the necessity for improvement and expansion of farm telephone service, then farm people must turn to new organizations, Rural Electrification Administrator Claude R. Wickard declared Friday, June 6, in an interview on the REA's telephone policies and program.

The 35-question interview with Mr. Wickard was requested in an effort to seek REA's views on some of the pressing problems in the rural telephone field.

The REA Administrator also said that he "can't conceive" of any future necessity for REA-financed toll lines interconnecting cooperatives, and reiterated his position against attempted duplication of existing companies' facilities or invasion of operating territory of present operators.

Full Text of 35 Questions and Answers Reported

TEXT OF THE following interview with Rural Electrification Administrator Claude R. Wickard by Fred W. Henck, Managing Editor of TELECOMMUNICATION REPORTS, has appeared in that publication, which serves as Washington correspondent for TELEPHONE ENGINEER AND MANAGEMENT.

Text of the interview with questions presented by Mr. Henck and answers by REA Administrator Wickard is as follows:

Question—Assuming that Congress will continue to give you the necessary loan authority and that the nation does not get into an all-out war, and taking into account your knowledge of rural telephone demand and your experience with the program to date, what is your concept of the scope of REA-financed telephone service two years from now?

Wickard—That is very difficult to answer specifically, in view of all the uncertainties. But I believe that within the next two or three years there will be a trebling of our rural telephone activities.

Q—Those members of the telephone industry who express concern about the REA program usually mention fear of competition by cooperatives for territory and subscribers, and duplication of commercial companies' facilities. Could you give us in a nutshell REA's view of the respective places of existing companies (not REA borrowers) and of cooperatives in the rural telephone field?

W—The law says that existing companies and cooperatives furnishing service are to receive priority. The existing companies should be given first consideration if they are interested, but if they don't see the necessity for expansion or improvement of service, the rural people will have to turn to new organizations.

I believe that it is not only the law, but it is also more practical and economical, for existing companies to take the lead. Our figures indicate that commercial companies that are giving good rural service are benefiting financially. The situation is the same as that in the rural electrification field, and history will repeat itself in the telephone program. Time and again it has been demonstrated that rural people offered reliable telephone service at moderate cost—for example, the subscribers of our first borrower to cut over service, in Fredericksburg, Va., are making calls for two cents each—are more interested in obtaining telephone service than the original estimates anticipated.

Q—There have been reports that subscribers of existing companies have been solicited to become co-op members. Have such instances been reported to REA, and what is your policy if they have been or are

YOU SAID IT, SAM

brought to your attention in the future?

W—We try to carry out not only the letter but the spirit of the law. We do not make loans to serve people already getting adequate service, and we try to discourage it when it comes to our attention. I haven't been able to find very many instances where this has happened—or at least where there was agreement that it happened. Rural people may not be completely familiar with the law, and they may have made mistakes, but REA discourages such actions.

Q—In the same connection, what about switching customers of existing companies, individually and as groups?

W—If we make a loan to put in telephone lines, we have to have some assurance that people on those lines will be satisfied with the service and with its cost. We want to assist in providing rural telephone service in the most economical and satisfactory way. There is no general policy on this subject, and we consider each case on its merits.

Prefer That Existing Operator Provide Service

Q—How about persons living along the lines of existing companies who are not now subscribers? What recognition is given to existing exchange area boundaries?

W—It is pretty hard to say that under a law passed by Congress we will leave people in any territory helpless if the existing supplier will not provide telephone service. We prefer that he provide the service. Two considerations here are that the state commissions customarily have jurisdiction over operating territory, and that we require that there be a definite agreement as to service areas, to avoid any misunderstanding. We don't like situations where a new borrower serves territory that is basically part of another organization's territory.

Q—What about possible competition for operating territory? If a telephone company has definite plans to serve an area which at present is unserved, under what conditions would REA recommend that a borrower insist on a certificate or other authority to serve that area?

W—We don't make a recommendation in situations like that. This is a local matter. REA regards it as a matter for local decision, and it seems to me that people in the area should have the deciding voice. It would depend on which interest could serve better, from the standpoint of community interest. We have never entered such disputes.

"I don't like your prices; the government ought to take over your stand and sell lemonade at two cents per glass!"

Q—If an existing company is making definite preparations to adequately serve an unserved area, does REA believe that such service would be of more value than that provided by a co-op with a separate exchange, and a possible toll charge to the exchange of the commercial company?

W—People should be given access to the community centers in which they have the most interest. We would rather see extended scope service, if possible, than the imposition of toll charges for calls in the same community of interest. Obviously, however, there are practical limitations to extended scope service, and answering such a question depends on the local facts.

Q—Would you consider construction of toll lines between a cooperative's exchanges a duplication of facilities, under the existing law, if there are existing adequate toll lines terminating in the exchanges involved?

W—That is very difficult to answer without an examination of the facts of a specific case. Our objective is to finance provision of service in the most practical way and at the lowest cost; our first obligation is to the user. The answer depends on such circumstances as how far apart the exchanges are, how good and how adequate the existing service is, and what the cost of use of the existing facilities would be. If existing service were completely adequate, we would not, of course, finance a duplication.

"Never Thought Of Separate Co-op Toll Networks"

Q—Do you anticipate any need at a future date for REA-financed toll networks to interconnect REA co-ops in lieu of existing toll facilities of commercial companies?

W—The toll telephone needs of co-op members are the same as those of persons subscribing from commercial telephone companies, and I can't conceive of a need for a cooperative-only toll system. In fact, I had never thought of it.

Q—In connection with acquisition of existing exchanges by REA borrowers, should REA be guided by a policy similar to that followed by the Bell System, which provides that Independent telephone associations, state and national, be informed in advance of any commitment to purchase an exchange, to determine if any Independent company would be interested in acquiring it?

W—We only consider applications for loans, and make loans to applicants. REA is the banker, and cannot control the pre-acquisition policies of either party. We don't feel that we should tell people that they must go here or there to find buyers, nor with whom they should reach agreement.

Q—There has been some feeling indicated that REA money is being used to finance acquisition of privately-owned companies by newly-organized co-ops at higher prices than the owners could obtain elsewhere. Have you any comment on that?

W—Before REA makes a loan, we have a committee that tries to set an honest valuation, to protect both buyer and seller. Since the REA loan program began, a number of financing institutions have gone into the business of making money available for small telephone exchanges. That has meant an increase in available financing, so that a lot of people who thought they would have to sell their exchanges have raised their prices because they could choose between borrowing from REA, or selling out. Small operators have found a new lease on life and are not subject to agreements by others, as mentioned earlier, as to who will buy what exchange. Obviously, we can't approve loans to buy property at inflated prices, because that would jeopardize the security of government loan funds.

Q—There also have been reports of "aggressive" solicitation of existing companies to sell their properties to co-ops being organized. If this is true, would it be in accord with REA policy?

W—We only come into the picture after people have an option or other agreement to acquire property. I want to make it plain that we would not,

and do not, approve aggressiveness that would put existing operators out of business. We're attempting to keep small business going, not eliminate it. REA, of course, does not solicit acquisitions, anyway, and we have no evidence that any REA employee has been involved in such a matter.

Q—Will REA finance a group to buy existing properties if no expansion or improvement of service is contemplated immediately?

W—No. There are very definite limitations in the law on refinancing, and we are interested only in making loans to improve or expand rural telephone service.

Defends Co-ops' Exemption From Regulation

Q—We have been told that the "model" rural telephone bill introduced in various state legislatures usually provides that cooperatives shall be exempt in all respects from the jurisdiction of the state commissions. If, as we assume, REA supports such legislation, why should rural telephone co-ops be exempted from state commission regulation?

W—There is a very fundamental principle involved here. If my neighbors and I want to put in telephones to talk to each other, we're not going into business. In a co-op, the people are serving themselves and don't need protection as buyers from a seller with a monopoly on the service.

Q—What will you do if a borrower defaults on his loan payments?

W—We would do everything possible to correct the cause of the default. We have had to take over only one property in the electrification program, and don't anticipate that we will have to take over any telephone borrowers.

Q—If it is necessary for you to take over property because of loan defaults, how will you handle that situation?

W—We would dispose of it as soon as possible, with full regard to safeguarding the government's investment. In any event, we would have to sell within a maximum of five years.

Q—What kind of switching service contracts will REA approve?

W—I can't answer that specifically, as we are still studying what we should do. But we would have to consider the economic as well as service factors in reaching a decision.

Q—Has REA advised borrowers

QUOTES

". . . the editor of Christian Economics wrote: 'Freedom is the most constructive force in the realm of economics. Pointing out those things which interfere with it and destroy it, and seeking the abandonment of such practice, it seems to us, are the most constructive services we can render.' " — *(International Falls (Minn.) Daily Journal).*

• • •

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not to enter into switching service agreements with commercial companies, and if so, does it feel that a separate exchange will provide better service than a switching arrangement with a community of interest or trading center exchange?

W—No, I don't think we would advise them not to enter into switching arrangements. But we believe that they should get a share of toll revenues. In the absence of ability to get a satisfactory contract, one that gives assurance of good service, we suggest that the borrower put in his own exchange.

Q—Does REA expect its borrowers, in making contracts for switching service, to insist that originating or "A" toll compensation be credited to the borrowers to offset switching service charges?

W—Yes. All toll business is increasing rapidly, especially where there is good, satisfactory service. People on switching lines owning the facilities and collecting the money for toll business should get something from it.

USITA Gave Valuable Aid In Contract Changes

Q—Why did REA modify its loan contract?

W—To make it meet more nearly the requests and needs of borrowers. Many of them, particularly those in business for a long time, felt that there shouldn't be too much supervision and restriction by REA. It is not unusual for a lender to lay down certain requirements when he lends money, but the fear was expressed that REA would dominate the borrowers. The U. S. Independent Telephone Association gave us valuable assistance in these revisions, advising us of their criticisms and working closely with us.

Q—Can borrowers with existing contracts change over to new ones?

W—Our lawyers still are studying that question. There is a restriction in federal law which may make it impossible to do so. But we certainly would want to give as much to old borrowers as to new ones.

Q—Has REA found that its area coverage requirements have been too strict? If so, are modifications reflected in the new contract?

W—Some people were fearful that REA would require them to overextend their service, resulting in finanical losses. It would be foolish to force any borrower to conduct his operations at a deficit, so he might not be able to meet his payments on our loan. Formerly, each case was decided on its merits. But the new contract includes a formula to assure borrowers as to their exact obligations.

QUOTES

"The Daily Times believes that all of us must realize that free enterprise made our country strong. We . . . should use this knowledge in the domestic battle against creeping socialism. If we do not win this fight at home, our resources, productivity and strength will, under encroaching bureaucracy, degenerate into stagnation and poverty here—and the free world's defense against tyranny . . . will be fatally weakened."—*Ely (Nev.) Record And Daily Times.*

Q—Is it sounder in the long run to serve sparsely developed areas completely, with higher rates, or to serve initially only the portions that can be served at more usual rates?

W—That's another tough one in the absence of specific facts, but I would say generally that we would rather start with service at reasonable rates, with the expectation and experience that more people will come in for service at those rates, so that in time the objective of full coverage is achieved. Obviously, if the rates are too high to begin with, we couldn't meet our objective of giving the people service.

Q—What has the experience been thus far on flat rates for an entire area? Is any modification of policy in prospect?

W—Experience has been good, and no change in policy is anticipated. Studies of our borrowers and various Independent telephone companies (not REA borrowers) have shown us that when service is good, people are willing to pay for it throughout a service area. At New Lisbon, Ind., to cite one example, after dial service was established at higher rates, the borrower has had to have three separate shipments of telephone instruments because of the heavy demand for connections.

Local Situation Decides Extended Area Service

Q—What is REA's view regarding extended area service with a larger exchange of a non-borrower nearby?

W—That depends on the territory and what the local people want. Telephone service costs money; there is no such thing as free service. If we have extended scope service over too large an area, it is going to cost too much. Local people, knowing their own needs, should decide, and of course the state commissions of many states must approve the rates.

Q—There is at least one reported instance (Albany, Minn.) where subscribers of an Independent company were told they must invest in the newly-acquired REA co-op to have service after the Independent was acquired. What is the policy regarding subscribers of existing companies absorbed by REA-financed co-ops?

W—We have found that subscribers to existing companies who have never been co-op members are usually not very happy when asked to put up money. Some state commissions have said that service can't be conditioned on membership fees or any contributions. It is largely a local problem, and state laws or commissions control the situation in many cases. Another aspect is the need of the borrower for equity, and some one has to provide that equity.

Q—Has there been any instance of a loan to a borrower to serve a town of more than 1500 people?

W—Yes, for example, the Eureka Telephone Co., at Corydon, Ind. There we made the loan because the people in the town and in the rural territories wanted one system. The law provides that loans may be made for service in such towns but only as a corollary to providing rural service, which of course is our objective and our reason for being in this program.

Q—Is the general policy regarding equity requirements the same for co-ops and commercial companies wishing to borrow REA funds?

W—The procedure and formula are the same for both. Our policy is set forth in our first telephone loan booklet, and has not been changed.

Q—If your recent equipment development contracts are successful, will the developments be made available to the entire industry? If so, on what terms?

W—Yes, on as liberal terms as we can make them. The sole purpose of the research is to come up with something that will expand the horizons of rural telephone service.

Q—Is progress being made in avoiding duplication of rural power and telephone lines through joint use of pole lines or power line carrier systems?

W—Some progress is being made. We hope our studies will pave the way for more.

Q—What can an applicant do to

cut down delays in obtaining an REA allocation and loan?

W—Read our letters carefully and give us promptly all the information we ask for.

Q—On the other end of the line, may an applicant close out an REA loan as soon as he is able to?

W—Certainly. We have already accepted the full amount of one loan, 34 years before the last payment was due.

Q—Will depreciation charges be sufficient to provide for replacement of plant, or will additional or supplemental loans be required?

W—Each borrower determines its own depreciation rate, subject to any applicable commission regulations. REA considers that a rate of 3½% is the minimum for safety.

Q—Why did you reorganize your staff, effective July 1?

W—To put our available manpower where it will work most efficiently. We want to speed up the telephone program. We found out by experience, we think, what is needed, and we also think this reorganization meets that need to the extent of our ability.

Q—Is it expected that the telephone proportion of total REA activity will continue to rise?

W—Yes, at least the increasing flow of telephone loan applications would indicate such a result.

Q—The floor is yours, Mr. Wickard. If there is anything you wish to discuss which we haven't covered, we would be very happy to have you do so.

W—I hope that this program instead of being looked at with fear by the small companies, should be regarded as a means of maintaining their place in the telephone field, and a means through which small companies may obtain financing as the larger ones have been able to do. We are not trying to replace or change the pattern of ownership in the telephone field. We think we are giving people the kind of assistance which enables them to give good rural telephone service.

No established company has been hurt by our operations so far. We expect to maintain that record. Finally, I appreciate this opportunity to state our position in your publications.—THE END.

CANADA:

Quebec Tel. Earnings Up . . .

QUEBEC TELEPHONE CORP. net profit for the three months ended March 31, amounted to $39,464, a 1.9% increase from $38,820 earned in the corresponding 1951 period.

Total operating revenues rose sharply to $444,776 ($364,553 a year ago), but increases in operating expenses ($278,465 vs $214,377) and income taxes ($53,039 vs $45,198) wiped out most of the gain. Depreciation was also higher at $51,015 ($46,765).

Texas Co-ops Organize

W. A. HILL of Goldthwaite, Texas, president of the Central Texas Telephone Co-operative has announced that more than 60 representatives of 22 existing and proposed co-operatives formed the Texas State Telephone Co-operatives Association in a meeting at Austin recently.

Hill, who presided at the organizational meeting, was elected vice president. Other officers are Carl Freeling of Vernon, president, and Jimmy Wright of Spur, secretary.

$120,000 Expansion Project

A $120,000 MODERNIZATION and expansion program of the Dryden (N. Y.) Telephone Corp., has been announced by W. Bradford Harrison, who recently purchased the controlling interest in the company from Henry A. L. Crosby of Dryden.

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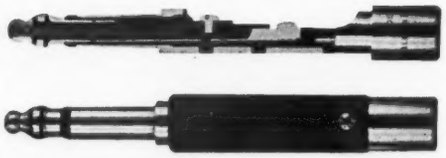

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Will the new issue be sold through public offering or private placement? There is something to be said in favor of both procedures and the issuing company must make a choice.

The Markets For New Capital

By ALBERT W. KIMBER

WHEN A COMPANY undertakes to obtain additional capital through the sale of securities, one of the first questions to be settled is whether the new issue will be sold through offering to the public or through private placement. There are times when that question is automatically answered, as for example when market conditions are unfavorable to a public offering, while insurance companies and other investing institutions are loaded with funds awaiting investment, or on the other hand when the type or quality of the security to be sold is not suitable for institutional purchase. But usually there is something to be said in favor of both procedures, and the issuing company must make a choice between them.

The private placement of corporate bonds, that is their sale by the issuer directly to buyers which will hold them for investment not offer them in resale, is not a new technique, it has been employed for so many years that the memory of man runneth not to the contrary. But until the last ten years or so this was on a comparatively small scale, and usually because of some special conditons or circumstances existing in the particular case. But in the last four years private placement has absorbed approximately 80% of the manufacturing, commercial and miscellaneous corporate bonds issued, and approximately 35% of the electric and gas utility new issues. These private placements were mostly with insurance companies and with banks, trust companies, or other trustees of pension funds and the like. Some of them are of large size, as for instance the $150 million of 15-year 3% which the Dominion of Canada placed here in August 1948. But in addition to the corporate bonds taken through private placement, the investing institutions have taken large proportions of such bonds in public offerings; in recent years such purchases from offering underwriters by the 22 largest life insurance companies, are estimated to have amounted to approximately 40% of the aggregate of utility bonds offered.

Private placement of securities goes beyond bonds and notes, however. Last March Indianapolis Power & Light placed at private sale 30,000 shares of $4.60 preferred stock; in April Carolina Power & Light placed privately 50,000 shares of $5.00 preferred; and in May Pacific Gas & Electric placed privately 306,680 shares 5% 1st preferred $25.00 par. During the past three months or so the market for preferred stocks, except for convertible issues, has not seemed to promise as favorable terms on a public offering for a utility issuer as could be obtained through private placement.

Thus the dominating position of the mentioned institutions in the market for new corporate senior issues is manifest. It is not too much to say that if the terms and conditions of any offer of senior securities are not satisfactory to the institutional buyers, the issue will be difficult to sell. Other buyers usually take their cue from the institutions they consider well informed; they trust the judgment of the big buyer more than they do their own. And it is here that the services of the investment banking house can be of great value to the corporate borrower, even on private placements of comparatively small size. The investment banker, through his constant touch with the investing institutions, knows which of them need to buy because of surplus funds, which of them are not in position to buy because of shortage of funds, temporary or otherwise, he knows what forward commitments they have made and how such commitments will affect the availability of funds, and he knows also the investment preferences and requirements of each. For it should be noted that the borrower must deal with individual institutions and their official personnel, or with a group of such institutions. It is a simple matter to compute aggregates and averages of performance against records of the past, but the issuing corporation does not sell its securities to aggregates

or averages. The investment banker knows where to go, so to speak.

The advantages of private placing most often mentioned are the comparative simplicity of negotiation, which is usually a fact, and (theoretically) its lower cost to the borrower than through public offering. The commission, or spread as it is called, charged by a banker in arranging a private placement is usually less than in a public offering, and some of the costs incident to registration with the Securities & Exchange Commission are avoided, in particular, the fairly large bill for printing of registration statement and numerous copies of the prospectus. But let no one think that the borrower really saves all these costs on private placement, the institutional investor drops his net price for the bonds so that he gets them or most of them.

Among the hazards that the borrower at private placement must guard against is the insertion in the loan contract or indenture of provisions that may add little or nothing to assurance of payment of interest and principal when due, but which may prove later to be embarassing or unduly onerous to the borrower. On the other hand, perhaps the greatest advantage to the borrower in private placement is that if hard times come the single or limited group of bondholders will often be more agreeable to request for modification of terms if relief from some of them should be needed, as for example a suspension of sinking fund requirements. This can be done in many cases where similar conditions with an issue of bonds held by the public might precipitate a default which would seriously impair the company's credit.

Another advantage in private placements is that often a borrower can arrange for forward commitments by the lending institution, sometimes running over a fairly extended period. Thus funds required for a construction program may be contracted for as an entirety in one operation, but may be drawn down as needed, interest accruing only from the drawdown date, plus a fractional standby charge. Such an arrangement is not practicable in a public offering.

Public offerings have other advantages. If the new securities are distributed largely in the service territory of the utility, the rate payers of that territory acquire an interest in the company which is virtually always of benefit to the company. It is probably well known that some electric and telephone utilities have gone to their regulatory commission with requests for higher service rates, and although public hearings have been held on their applications not a single protest or objection to the proposed higher rates came from the subscribers who would have to pay them. Company securities outstanding with the public are an advertisement for it, specially if regularly quoted on an exchange or in the over the counter market. Some electric and tele-

Table One—Telephone Company New Capital Issues March—May 1952

Bonds and Debentures	Amount	Price	Yield
March 1952			
Jamestown Telephone (N. Y.) 1st 3.625% 1982	$ 700,000	100.00	3.625%
Junction City Telephone (Kansas) 1st 4.50% 1977	294,000*	102.00	4.37 %
Lincoln Tel. & Tel. (Neb.) 1st 3.375% 1982	2,500,000*	100.00	3.375%
LaCrosse Telephone (Wis.) 1st 3.875% 1977	250,000*	101.00	3.80 %
Public Telephone Co. Blair, Neb. 1st 4.50% 1972	80,000	102.00	4.35 %
April 1952			
Illinois Bell Telephone 1st 3.125% 1984	25,000,000	101.525	3.10 %
California Water & Telephone 1st 3.875% 1979	1,000,000*	100.00	3.875%
Kentucky Telephone Corp. 1st 3.80% 1982	1,800,000*	100.00	3.80 %
North States Telephone (N. C.) S.F. 3.55% Notes 1977	750,000*	100.00	3.55 %
Interstate Telephone (Wash.) 1st 4% 1982	900,000*	100.00	4.00 %
May 1952			
New Jersey Bell Telephone Deb. 3.25% 1984	20,000,000	102.824	3.13 %
British Columbia Telephone 1st 4.50% D 1971	8,000,000	99.00	4.57 %
Quebec Telephone Corporation (Canada) 1st 4.25% D 1972	1,000,000*	100.00	4.25 %
Western Light & Telephone (Kans.) 1st 3.75% 1982	1,000,000*	100.00	3.75 %
Preferred Stock	**No. of Shares**	**Price**	**Yield**
March 1952			
Indiana Associated Telephone $2.50 Pfd. no par	20,000	47.50	5.26%
Southwestern Associated Telephone 5.50% Pfd. $20 par	75,000	20.00	5.50%
April 1952			
Rochester Telephone Corp. (N. Y.) 5% Pfd. $100 par	60,000	100.00	5.00%
Allegany Telephone (N. Y.) 5% Pfd. $10 par	6,500	10.00	5.00%
Kern Mutual Telephone (Calif.) 6% Pfd. $25 par	5,000	25.00	6.00%
Warren Telephone (Ohio) $5.00 Pfd. no par	3,000	100.00	5.00%
Common Stock			
March 1952			
Bell Telephone of Canada Com. $25 par (2)	1,580,000†	31.50	6.35%
Mountain States Tel. & Tel. Com. $100 par (6)	318,624†	100.00	6.00%
Home Tel. & Tel. of Virginia Com. $5 par (0.36)	40,320	5.00	7.20†
April 1952			
Tidewater Telephone (Va.) Com. $20 par (1.30)	13,025	22.50	5.78%
May 1952			
Lincoln Tel. & Tel. (Neb.) Com. $16.66 par (1.50)	1,002†	25.00	6.00%

*Private placement
†Offering to stockholders

phone utilities have sold preferred and common stocks to their subscribers directly, and some of them have even obtained better terms by this method than otherwise they might have been able to get. But as a rule, offerings made through an investment banker prove more satisfactory. Strange as it may seem, a higher price for the securities has often been realized on public offerings than could have been obtained in a private sale. One reason is that the growth of private placement has limited the amount of new securities available for public offering, contributing to higher prices for the new security, enough higher so that the costs of registration and distribution are absorbed and the borrower nets even more than he would in a private placement.

The investment banker should be brought into the situation as early as possible. Sometimes an apparently simple transaction encounters problems that need time for study, and even if not, the advice of the underwriting house can be of great value to the issuer. And an underwriter can often place a second issue or a third one more successfully than he did the first. It is no accident that among non-regulated companies, that is those not required to offer their securities at competitive bidding, some of the most successful companies have had the same firm of investment bankers act for them for years. The services of underwriting bankers are available to small issuers as well as to the large ones. Some of the small offerings in our *Table One* were for fairly small amounts, for example, the 20-year bonds for the Public Telephone Company, Nebraska.

Bonds and Debentures

SENTIMENT among underwriters of bonds for public offering was so pessimistic in March that several issues were postponed and others repriced. Underwriters and issuers alike were confused on the outlook for government bonds in view of the huge amount of government refinancing that was overhanging the market at the time, although the open market prices on government securities outstanding did not fully reflect this. Then too the March 15th income tax payment date threatened to make heavy drafts on bank resources. As it turned out, the Treasury refinancing was handled without difficulty, although at slightly higher interest costs, and the banking structure showed no sign of strain. Then the big institutional buyers came into the market and swept dealers' shelves practically bare of corporate bonds, and April opened with a rush of new offerings.

QUOTES

"The government clearly is responsible for the present messy steel situation. They have bungled from the start, with a policy for waste increases and against price increases . . . which doesn't even make primer commonsense."—*Fort Pierce (Fla.) News-Tribune.*

Prices for new issues in March, those that came through to the market were weaker than in February or January, borrowers paid more for their money. The most numerous bond rating among the utilities, the Aa, were offered at yields of 3.20% or higher, and some of the offerings were not fully sold at these prices. But in April and May sentiment had so improved that none of the Aa offerings for utilities were priced to yield more than 3.16%. But as usual when the pendulum swings it swings too far, and few of the high priced bonds offered in April held their price, most of them by the end of May were down a point or more in the trading market.

The underwriting group worst hit during the March period of uncertainty was the municipal houses; at the end of March it was calculated that unsold municipal bonds in hands of dealers aggregated a principal amount of approximately $248 million, the highest figure ever recorded. And even the improved conditions of April and May have not reduced the excess inventories much, at the end of May they were still over $200 million. And hanging over for bidding in early June was the huge $330 million State of Ohio Highway bond issue. However, when the issue was offered on June 4 all the bonds were sold within an hour. A tax-exempt bond that looks safe, offered to yield 3.25% is attractive to this market. The firms which are primarily underwriters of corporate bonds often participate in a state or municipal issue, especially if it is a large one, and the conditions and prospects in the market for municipals affect the corporate underwriters also.

The improved tone in the new issue market continued through most of May. Union Oil Company of California 3.125% convertible debentures offered at 100 were so quickly sold that already on the offering date some potential buyers were bidding as much as two points over the offering price.

Undoubtedly the price performance of new bonds, after syndicate support was withdrawn, was affected by the course of government bond prices during the period. At one time in May, after the Treasury's second offering of non-marketable 2.75% bonds, governments advanced so that the Victory 2.50% issue was within .375 of par, but subsequently this issue declined to 98, which was nearly a half point under their price when the Treasury announced the new financing, and the lowest price recorded since late April. Gossip in the street was that the new offering of 2.75% bonds would raise comparatively little new cash for the Treasury, probably not more than a billion dollars; but it was officially announced June 5 that the treasury had received only $450 million new money, although there had been substantial conversions from the four long term issues that were eligible for it.

The largest single public utility offering of bonds ever to be made, in fact the largest piece of corporate new issue financing ever done in this country, is coming in the American Telephone & Telegraph Company new $510 million of 12-year 3.50% convertible debentures, which will be offered for subscription by stockholders June 16th next at 100. Conversion privilege is to begin September 30, 1952 and run to July 31, 1962, except in case of prior redemption, upon surrender of $100 debentures and payment of $36.00 in cash per share of the stock. This issue will constitute the fifth block of convertible debentures which American Telephone has offered to its stockholders since 1946. In that year the coupon rate of the debentures was 2.75% and the conversion price of the stock 150; in 1947 company also put out a 2.75% coupon with conversion price of the stock 140; in 1949 the coupon rate was 3.125%, the price of the stock 130 increasing June 19, 1951 to 140; in 1951 the coupon rate was 3.375%, the price of the stock 138. Now we are to have a 3.50% coupon with conversion price of 136. This record is an important illustration of the increasing cost of money over the last five or six years.

Preferred Stocks

THE MARKET for new issues of utility preferred stocks stood up more strongly during the March unsettlement than the bond market did, and continued in its improved tone

(*Please turn to page* 92)

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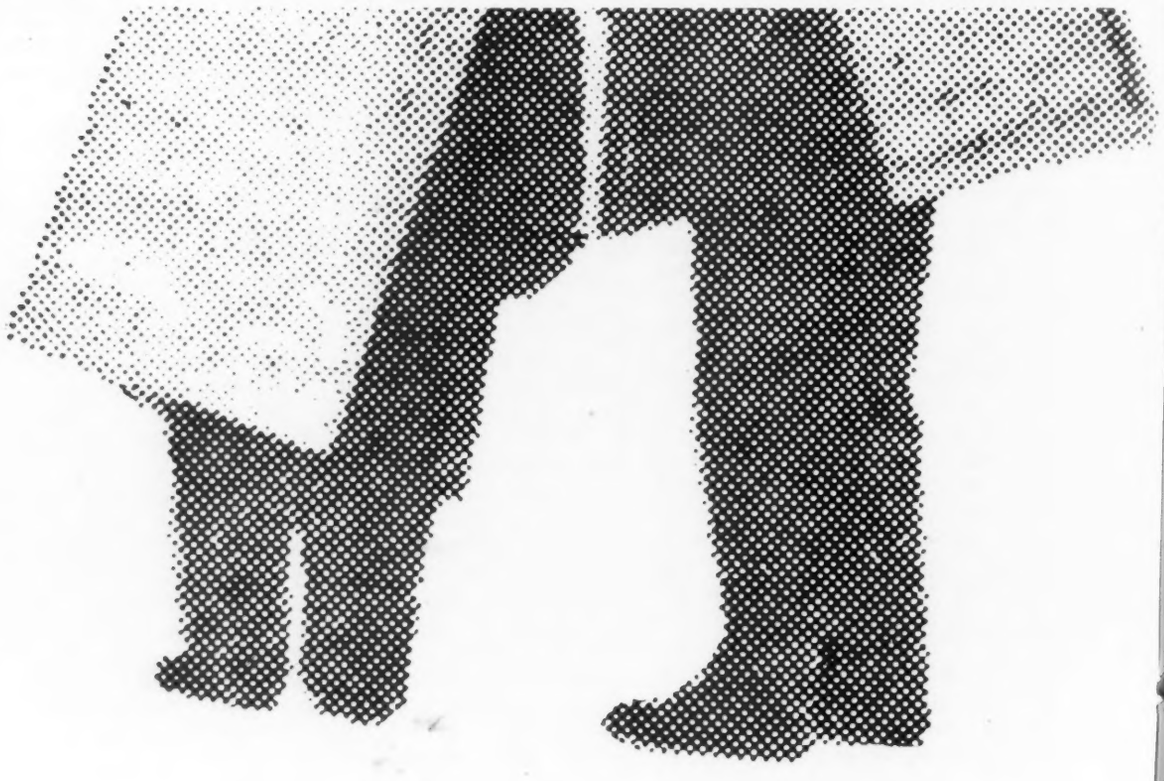

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Good Press Relations Don't Just Happen

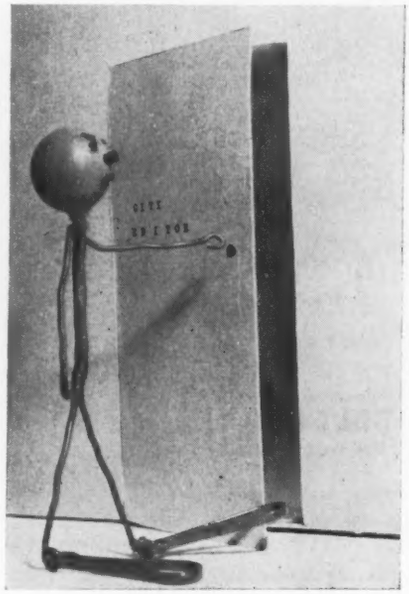
By DAVE MARKSTEIN

"When something happens—don't sit on the news—bring it immediately to the attention of the newspapers."

MEN YOU PROBABLY don't know can do a lot to hurt or help your company—and you personally.

They are the newsmen, reporters, radio analysts, editors, legmen and rewrite men on your local newspapers and at the local radio stations. They have the say on whether any particular firm gets every favorable news break, or is ignored when the time for dealing out headlines rolls around. Not that these men as a group are small-minded enough to deliberately distort or twist the news, despite claims by petty politicians that the press is crooked and venal. It isn't. But the majority of small-time news (and this includes news of personnel changes, new installations, etc. which might result in good publicity for the local telephone company) is of the take it or leave it variety. There is always an overabundance of this sort; and, contrary to what outsiders believe, the problem of an editor is not to fill his columns each day, but rather to pare down, discard, kill, and generally make a decision on which of a flood of items will see print. He is a human being, and as such is likely to pick up an item about a firm or a man he has always found cooperative over one about a fellow who makes things tough when he wants help.

One guaranteed-sure way to offend the press was discovered by an executive whom I'll call Jones. At a recent cocktail party, Jones got into conversation with a stranger who, it developed, was a reporter on one of the local papers. "Tell me," moaned Jones to his new acquaintance, "What's the matter with the newspapers here? Recently, I worked out a simple new idea for taking some of the work (and consequently some of the cost) out of pay installations. It was picked up by the Associated Press and papers all over the country, except right here in my own town, carried the news. I'm the traditional prophet without local honor."



Get to know city editors and other key men at newspapers and radio stations—also department editors, free lance writers, reporters.

From that recitation of grievances, Jones launched into a discussion of a new type of hospital communications set-up he had perfected in working with officials of a local clinic.

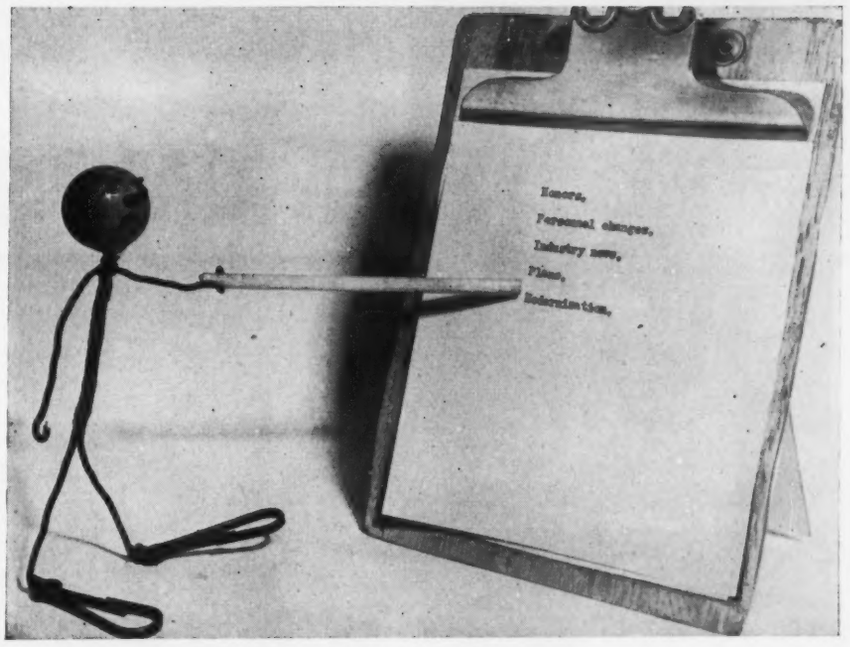
The reporter was interested. He mentioned the matter to his city editor next morning, and received an assignment to go after a story, together with a crack from the city desk to the effect that *"it's your own funeral."* He put on his hat and went out to the office of his new friend.

"I'll give it all to you in confidence," answered Jones when the reporter stated that he wanted figures on results in the hospital trying to back up the claims. But the doctors and I can't have these things getting into the lay press before scientific medical journals report them. No, I don't know when anything will run in a scientific publication. And you'll have to let me dictate the way the story will be written."

At this point, the reporter folded his notebook and stalked disgustedly out. At the door, he turned and let loose a parting blast: "Last night, you wondered why you are ignored by the local papers. You've just provided an answer. We're like anybody else. We expect cooperation if we are to give it. As far as I am concerned,

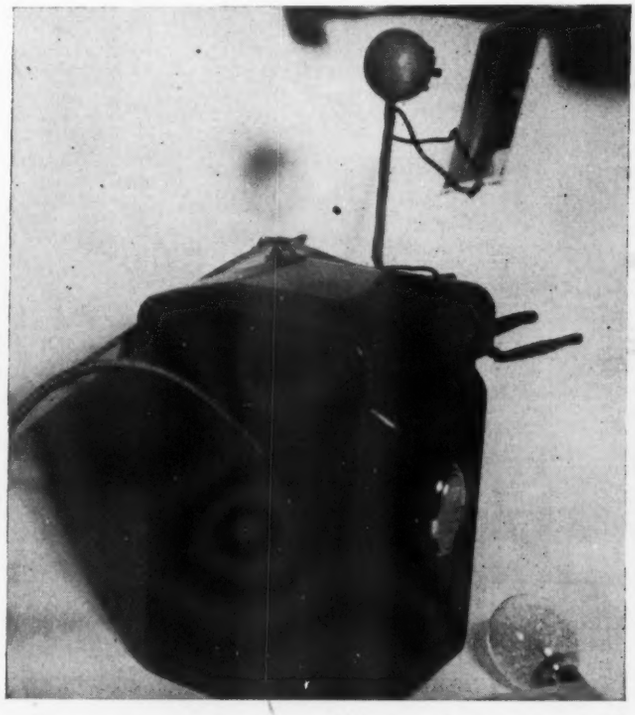
from here out I'll report the news about you if it's sufficiently newsworthy, but if there is any choice, you're a dead duck. And let me tell you something else. You don't own the news just because you are in it. There are two ways to get any set of facts: The hard way and the easy way. You've closed the door to my getting them the easy way. Well, just to show you that the lay press, as you call us, has all the right in the world to report anything in the news, I'm going to get this story without your cooperation, and I'm going to see that it runs before any of your precious scientific sheets can get it. And that's not all. I'm going to report the development in complete detail. But I'm going to leave *you* strictly out of it. You'll get not a line of favorable publicity. You talk about professional ethics. We have some in my profession too. But the difference between your code and mine is that mine happens to be embodied into the Constitution of the United States. Neither you nor anybody else can stand between a newspaper and facts it wants."

Many people unfamiliar with the fourth estate believe that the way to build good press relations is to follow the example of the oldtime press agent and attempt to buy it with favors. Doing a favor where it is appropriate won't ever hurt. But anything which smacks of an attempt to buy news space, either with money itself or with costly presents, wine, dinners or whatever, is certain to arouse instant resentment. There are a few venal newspapermen. But these are happily in the minority. Any self-respecting newsman is likely to react to an attempt to buy his favor with contempt.



Many routine changes and events can make the news. Since papers are usually flooded with take it or leave it news of this type, the nod on insertion goes to the cooperative firm.

What of the times when newsmen pry to uncover facts a company does not want to become public? As the reporter warned Jones, there are two ways to get any set of facts. If the easy way is blocked, chances are any enterprising reporter worth his salary will find a harder, but nonetheless sure, way to get the news he has been assigned to gather. Answer their questions, even if it hurts. Since the facts are almost bound to come out in any case, an attempt to cover up



Pictures can pay off in publicity. When papers can't furnish a photographer to cover company events, hire your own. Make sure he works with the speed of a news lensman —for an hour past deadline might as well be a week late.

Above all, to rate space in the news columns, it's necessary that you give cooperation in order to get it. Go along with reporters' requests, help them when you can, be frank and open—they can do a lot for you.

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To prove this to yourself, we suggest you try a Type 40 Monophone in your *own* home. *Live* with this modern instrument. You'll like its clear, crisp transmission, on long distance as well as local calls. You'll like its pleasing ringing signal, its comfortable "feel," its new silk-smooth Type 51 dial, and its smart, modern lines. In short, you'll agree that the Monophone is an unusually *satisfying* telephone—one that will build goodwill among users.

Order a sample Monophone today. You'll order many more when you see the *selling* job it can do for you!

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only arouses animosities which can hurt on later stories.

Movies about famous people frequently picture reporters as cringing nobodies who are happy to be tossed crumbs in the form of short interviews. Actually, the average reporter has much more of a cocksure than a cringing attitude. You may be a big shot in your field or in the town, but he has met more real big shots on equal terms than you can count. He expects to be treated, not with deference, but definitely with respect. He can do more for you than you could possibly do for him, and he is well aware of the fact.

Show the same respect for the photographer who might accompany him. If he asks that your routine be interrupted a few minutes while he sets up a shot, go along with his request. The few minutes' interruption may be amply repaid in resulting publication of a picture. Never tell him how a picture should be posed. It is his business to know, and he will greet interference with the same sort of attitude that Jones met when he attempted to tell a local reporter how a news story should be written.

Just because the telephone company happens to be an advertiser is no sign that reporters are going to bow and cater to its executives. On a few occasions prominent advertisers have threatened to get the jobs of reporters who displeased them. Happily for the nation's free press, the newspapers which will yield to this sort of pressure are few and poor. During the Louisiana scandals of 1940, when politicians were being indicted in the Federal courts by the dozen every day, the *Times-Picayune* front-paged a photograph of the president of a firm which happened to be a leading advertiser. It was on the day following discovery of his involvement in one of the political messes being uncovered. Indignant executives burned the telephone wires to the newspaper's business offices an hour later, threatening all kinds of reprisals. The only answer they got was, "If he is indicted today, He'll be on the front page again tomorrow."

There are three things guaranteed to bring about the type of attitude among newsmen sure to result in poor press relations. The first of these three is to keep the reporter waiting in an outer office for your convenience. If the wait is necessary, okay. But if it isn't, see him promptly when he calls. If he asks something, supply what he wants without delay. He deals in one of the most perishable commodities in existence. A wait of a few hours can convert interesting news into uninteresting history. Moreover, he has to compete in most cities and towns with opposition reporters. If one of them beats him by an edition, the story is as dead as the tale of Napoleon's defeat at Waterloo.

The second sure-to-offend gambit is a reply which has gained in favor among those unschooled in the ways of winning press friends and influencing the public. It consists of two words—"No comment."

Not long ago, Dudley LeBlanc, the Hadacol medicine man who was then at the height of his success, visited Chicago. He was met in his hotel room by newsmen from two of the Windy City papers. One of them posed a question much in the news at the time (April 1951): "What do you think of the controversy between President Truman and General MacArthur, Senator?

LeBlanc, an adroit politician as well as a successful showman, gave a lengthy but discreet answer in which he hedged by pointing out virtues on both sides of the question. One of the reporters remarked as he picked up the telephone to call his city desk, "You know, Senator, you are the first man of prominence to answer that question, and I've been asking Chicago people for two days."

LeBlanc's remarks made the front pages of both newspapers the next day. A "No comment" answer would not only have deprived him of a valuable opportunity to gain publicity, but would have antagonized two men whose good will was worth solid dollars to his corporation.

The third of the bugaboos is sitting on the news. When something happens it should be brought immediately to the attention of newsmen—or not at all. In a big organization that has a functioning and very efficient professional publicity staff, one executive belongs to a local civic club. On occasion, he has approached the public relations director of the organization for aid in getting his club's proceedings publicized. "I'd be glad to help him," the publicity man confided to a reporter friend recently, "but the trouble is his club meets on Monday, and he comes to me on Wednesday or Thursday with a request that I call the papers. I've tried to explain that I wouldn't insult our contacts by even suggesting to them that two day-old events might be newsworthy. If he'd only give me *advance* notice, I could arrange to get reporters to his meetings."

To go about building up contacts and making yourself a friend of the press, follow these rules:

(1) When something looks as if it might make a good story, pick up the telephone and call the papers. Just ask for "city desk." The city editor will be your initial contact. He is the man who deals out the story assignments on local matters. His yea or nea decides whether an event will be covered or ignored.

(2) Don't wait only for the things

(*Please turn to page* 77)

When something of news interest occurs, report it immediately—or not at all. A good habit is to phone in any tips you know, even if they don't result in immediate publicity.

In number of accounts, transactions and total assets the operation of Michigan Bell's Telephone Employees' Credit Union is in many respects larger than some small town banks. For complete story see article on page 61.

MANAGEMENT TIPS

This month's management discussions, taken from papers presented at recent telephone conventions, cover "Inadequate Returns", "Customer Relations", and "Rate Increase Applications".

Inadequate Return

By BEN B. BOYNTON,
General Counsel,
Illinois Telephone Assoc.

THE TELEPHONE company's return on its investment is clearly inadequate if it is not large enough to attract capital to invest in the company's securities. The cheap money condition of the '30's and '40's no longer exists. Interest rates have stiffened, particularly for the small companies. The Commission must have this situation called to its attention. It must give these companies higher rates of return than was thought proper in recent years in order that the companies can properly finance so as to take care of their obligation to furnish good and adequate service to everyone in their territory that desires telephone service and is willing to take it under the company's rates and regulations.

The Illinois Commission in fixing rates has been using the net plant figure shown on the company's books as the property value. This is upon the theory that this represents the original cost of the property. While our Supreme Court has said that both original cost and reproduction cost must be considered in finding the value of the company's property upon which a fair return must be provided by rates, yet, as stated, the original cost is practically the only figure considered by our Commission.

Very few of the small companies book figure represent the original cost of the property. Bookkeeping has been sketchy and the cost of much of the property construction, particularly labor, has been charged to operating expenses. The consequence is that the property figure on the books is not large enough to provide sufficient equity to support the borrowing of an amount of money sufficient to meet their construction requirements from institutional investors. There should be some consideration given to the statement of the proper amount on the books so that this borrowing can be effected.

The Uniform System of Accounts prescribed by the Commission for Class C telephone companies provides for a reclassification of the telephone plant in service with the ultimate end in view of placing the plant figure on the books at original cost. To change the amount on the books for past construction calls for the consent and approval of the Commission through the accounting department. So far this department has not been sympathetic to transferring construction charges that have previously been charged as operating expenses to the capital account. The vital neces-

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sity of setting forth the true figure for plant irrespective of where the expenditures were previously charged so that the company can finance all additional capital outlays required of it to fully discharge its public duties should be forcibly presented to the accounting department and the Commission. Penalties for improper accounting that the Commission might contend should apply to large companies with competent accounting staffs should not apply to the small companies who have not had telephone accounting experience.

Customer Relations

By EARL O. EHRHARDT,
Division Commercial Manager,
Upstate Division,
Illinois Bell Telephone Co.

FOR A MOMENT let's look at service through the customer's eyes. He expects a technically high grade of telephone service. He wants to hear and be heard easily when he uses his telephone. He also wants that service to be speedy and accurate . . . dependable at all hours . . . that he can count on it whenever he needs it.

As a matter of fact, he probably takes all this for granted. By providing technically good telephone service over the years, you've educated the telephone user to expect that kind of service just as a matter of course.

Well, does he want anything more? You know the answer to that. He wants something else . . . something that springs from a deep-rooted aspect of human nature. It affects not us alone, but pretty much all service businesses; and it has a value which is hard to overestimate. He wants to deal with *sympathetic, understanding people*, folks who take a keen personal interest in his problems and are willing to give him a little special attention.

People like to deal with others who are friendly, courteous, pleasant —easy to get along with. Is this important? I think so, because it's basic to the future of our business. If customers approve our action, our job's easier. The business grows and prospers. More folks want a telephone. The telephone serves more people and purposes. And. it's more likely to be kept through good times AND bad.

But if they disapprove—well, the road ahead can be a rocky one. It could be increasingly difficult to adjust service rates to keep the company financially healthy. The customer becomes less tolerant of inability —to keep up with growth, or to give the customer service WHEN he wants

it, or to give the class of service, whether individual or party line service.

These are not the easiest of times. We are concerned these days about shortages—of equipment, of basic materials, particularly copper—of switching equipment, switchboards—circuits. BUT—there's one thing we never have an excuse to have a shortage of—it's that something which helps keep the customer as our friend.

Sometimes we call it overtones or spirit of service. I'm going to call it "X". It's the "X" quantity basic to our business philosophy—the X-tra of going out of our way to help—to express our sincere desire to serve. Actually, it's a frame of mind.

Well, now would be a nice time for me to come forth with a fine set of rules or practices—or at least a more tangible definition for this thing "X". But, I have no magic formula to offer. This desire to serve—to give a customer a little X-tra service—to give service that's not only good but BETTER than good, is something that's felt and believed; most everyone has it—somewhere down deep inside; it's born in all of us. But, it has to be cultivated and brought out.

Oh, what a difference it makes when it is used!

Before You File A Rate Increase Application

By J. C. CROWLEY, JR.
Secretary,
Minnesota Telephone Assoc.

HAVING HAD years of experience of the past in representing the applicant companies on the dates of their hearings in presenting rate increase cases to the Commission, we feel that we should point out the essential things that management should do prior to filing of the application.

(1) It should be pointed out that telephone management has very definite obligations to the residents in the communities that it serves.

(2) It must furnish a reasonably adequate telephone service—

(a) Through a force of courteous employees.

(b) By prompt repairs when service interruptions occur.

(c) By promptly investigating any complaints made by the subscriber as to the cause or nature of the complaint. An explanation should be given the subscriber of the conditions found after investigation of the complaint.

(3) Standard rules and practices of the company should be fully explained to the subscriber if requests are made for special services. Bear in mind that discrimination is unlawful.

The above simple rules, if followed and strictly adhered to on the part of management, will build up the best of public relations.

The following information is essential in the presentation of your case for the information of the Commission.

(1) What was the date upon which the present schedule of rates became effective?

(2) What has occurred in the way of increases in costs of operation and maintenance since the existing rates became effective? What increase has there been in taxes?

(3) How do the present wages and salaries paid compare with those paid as of the date of the last hearing?

(4) Do you propose to allow further increases to those employed if the schedule of rates asked for is approved?

(5) Has there been any increase in the cost of truck or auto expense since the date of the last hearing? Has there been any increase in costs of maintenance material such as batteries, cords, wire, insulators, instru-

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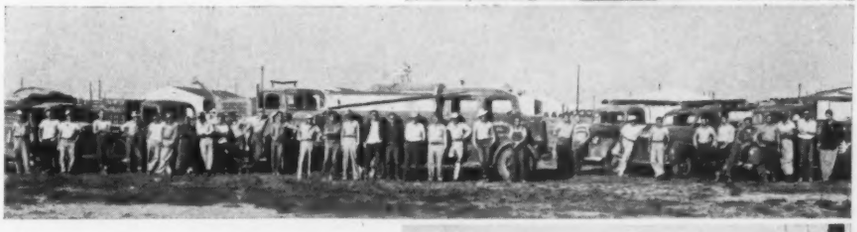
We're proud to do our part in the defense program. The Neale Construction Company has been chosen by the Government for a number of outside plant construction jobs. And we have bent every effort to complete all our defense assignments in record time.

In the coming year there may well be still more defense work for us to perform. However, our telephone company customers may rest assured that we are still fulfilling our contracts for new construction, maintenance and emergency repair on time. We will be quick to notify you, if a defense contract will necessitate any postponement in scheduling work for you. You understand, of course, that vital communications for the defense of our country must come first.



These fine Signal Corps photographs show the men and equipment of the Neale Construction Company on the job at Fort Hood, Texas. Top picture shows the Neale Cable Spinner in operation. Center shows the full complement of Neale personnel assigned to the job. Bottom shows a crack Neale crew and their modern construction equipment.

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ment parts, receiver shells, mouth pieces and other maintenance materials?

(6) What was your plant investment or book cost at the time of the last hearing?

(7) What was your plant investment as of December 31, 1951?

(8) Regarding this plant investment increase, is this net increase in plant investment after giving consideration to plant retired during this period?

(9) Do you propose to increase your capital investment by conversion to dial operation?

(10) Have you ascertained the costs of apparatus and substation equipment, including labor of installing?

(11) Are you contemplating any extensions or increase in cable capacity? If so, have you prepared an estimate of the costs of same including labor of installing?

(12) Do you propose to extend your pole lines to extend your service? If so, have you prepared an estimate as to the costs of poles, attachments and labor to erect same?

(13) Do you propose to reduce the number of subscribers on rural circuits? If so, have you prepared an estimate as to the number of miles of wire this will require and the necessary labor costs to increase the pole line capacity so as to carry the additional circuits?

(14) *Subscribers' Station Equipment.* Do you propose to rewire the subscribers' premises and place modern carbon and fuse protectors? If so, what is your estimate of the costs, including labor to perform this essential improvement?

Now that you have prepared the estimates as to the capital investments that will be required to install these improvements, have you advised your commercial or businessmen's organizations, your editor, and your subscribers as to the necessary schedule of rates to sustain your increased investment, pay your employees a fair compensation and properly maintain your service so that interruptions in service will be minimized?

If you have done all these things and have your memorandum before you so as to give the right answers from your figures, then you are in a position to testify intelligently without confusion and the proceedings will be shortened to the satisfaction of the Commission, the public that you serve, and when the presiding officer says you are excused, it will be a satisfaction to you and to those who conduct the interrogation.

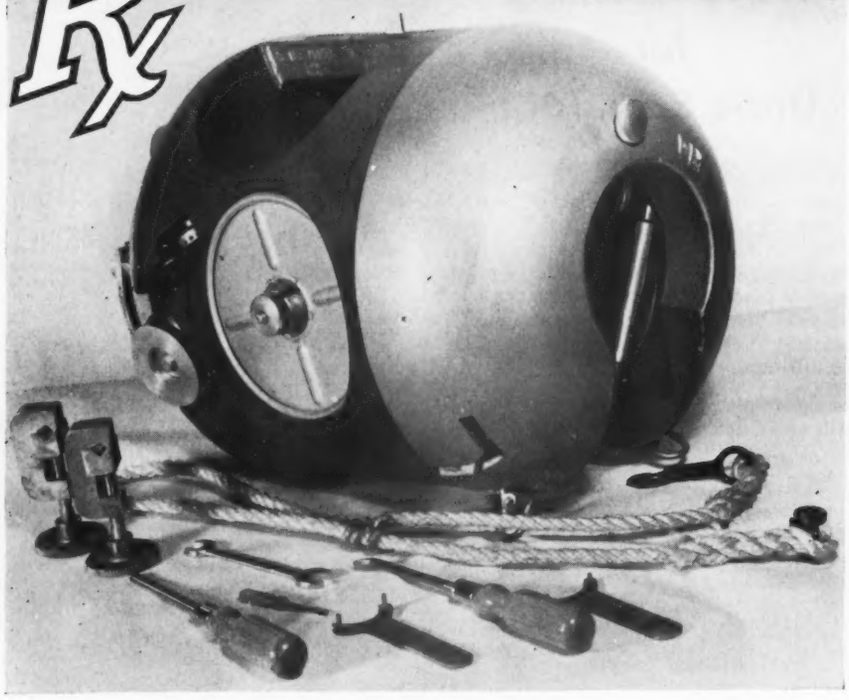
It is as simple as that. We say, convince the public that you serve as to the necessity of the increased rates to avoid a diminishing return and encourage new money to be forthcoming so that improvements and extensions can be made to meet the public demands, for only on a fair rate of return will the investor be induced to furnish the capital requirements.

If you have compiled the above information and figures for presentation and a story of the necessity for these rates so that management may attain its objectives, we suggest that you publish such information and data in your local paper.

QUOTE

"Obviously we cannot continue to support so large a portion of the world's population and meet its economic and military requirements as we have been doing these last few hysterical years without going broke ourselves." — *Wilmington (N. C.) Morning Star).*

Rx for Double-Purpose Jobs



Here's the Neale Model K Pull Type Spinner—engineered for versatility. It's doing a great job on electric power lines . . . and telephone lines, too! Model K has a maximum capacity of three 2" O.D. cables, and will spin single cable as small as ⅝" O.D. This spinner may be used with either one or two coils of spinning wire, so you may have either a 13" spiral or wire 6½" apart. Model K is furnished with two LC5 Lashing Wire Clamps, tow rope, cable placing dolly, and chest.

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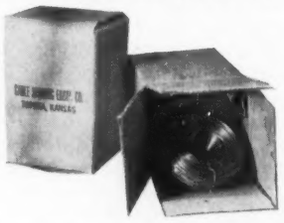

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By A. S. FOWLER
Office Manager,
Telephone Employees' Credit Union,
Detroit, Mich.

"A MAN-SIZE OPERATION"

Installation of "Film-a-record" microfilm equipment eliminates cost and laborious recording and handling of the credit union's transactions. Mr. Fowler estimates equipment has reduced costs at least 50 percent.

COMMUNICATION and its varied applications is merely one of the many things handled by Bell Telephone company employees in this Detroit operation. Another important job is that of running our own private bank, which is known as the Telephone Employees' Credit Union. In number of accounts, transactions, and total assets it is, in many respects larger than some small town banks.

A Credit Union is a cooperative organization, chartered by the state or federal government, made up of a group of people having the same common bond of association or occupation. Its purpose is to promote thrift among its members, to provide a source of funds where loans may be obtained at a nominal rate of interest, and to assist members in the management of their financial affairs. So, a Credit Union does everything a bank does and goes a little beyond in that it takes a personal interest in its member depositors.

The Telephone Employees' Credit Union, established in 1936, is now completing its sixteenth year of operation. We boast of 8,500 active accounts of which approximately 50 per cent are borrowers. More than 7,000 cash deposits, totaling $100,000 are posted each week to individual accounts direct from members' pay checks.

In addition to this we handle approximately 650 individual cash deposits, withdrawal, and transfer slips every day. Further tabulation reveals a million and a half transactions going through our machines annually. This is a man-sized operation. Our office force consists of 10 girls and one man, besides myself.

Since our Credit Union operates in much the same manner as a bank, we are governed by the Michigan State Banking Department regulations, which require all organizations using machine accounting to issue statements to members at least once each quarter. Until recently this was done by hand. Setting up new statements and sending out old ones to members at the end of each quarter was a job that, by necessity, had to be done on Saturday at overtime rates. The vast amount of work required, at prevailing overtime rates of pay, cost the organization approximately $3,000 annually.

The installation of Film-a-record microfilm equipment has eliminated this costly and laborious hand work. Every individual transaction handled through the Credit Union's machines is now put on film daily. Cumbersome as it may sound, this microfilming takes no more than ten minutes at the end of each day's work. As all transactions are being made to Member's Ledger Account cards, the laborious job is reduced to simple routine.

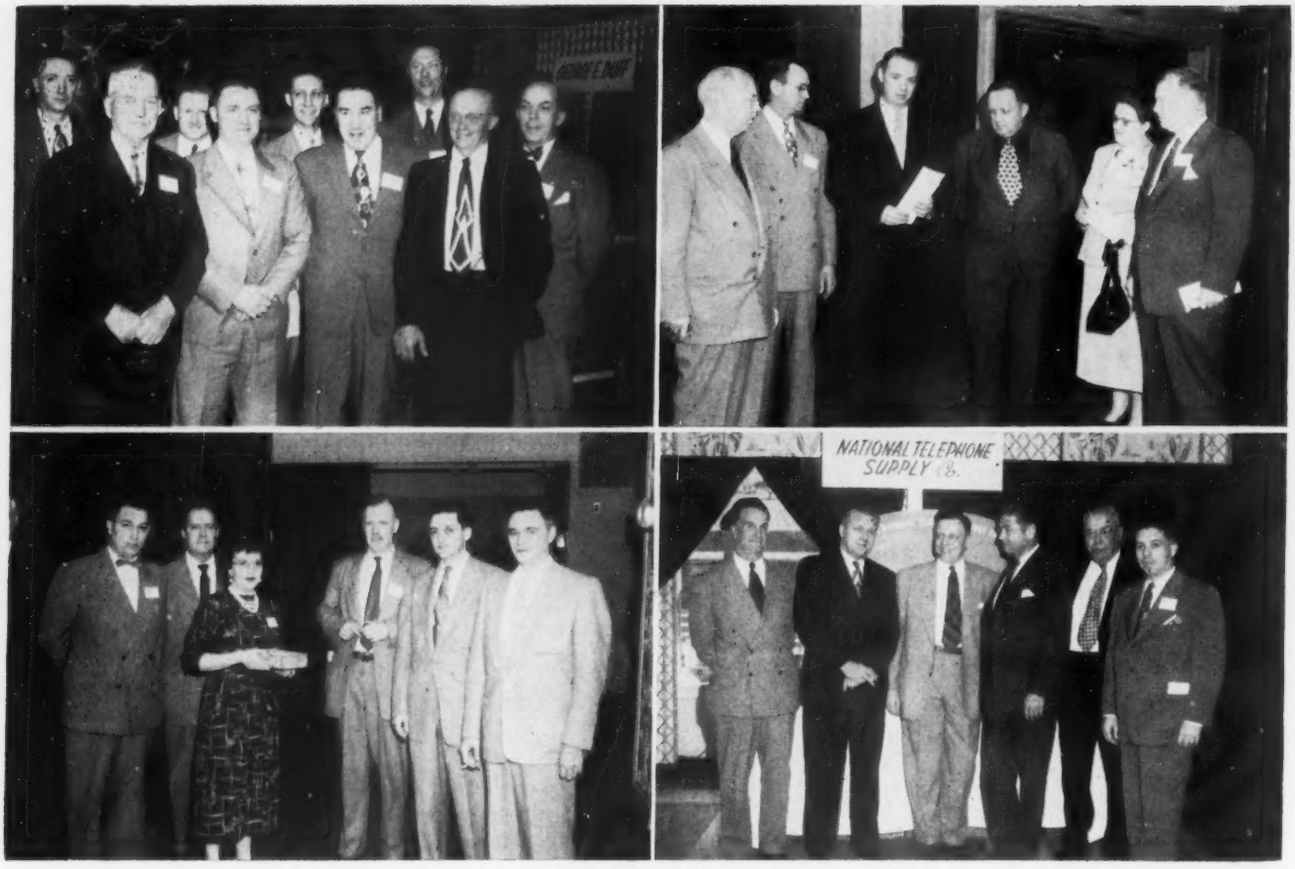
Duplicate prints are made of each film, with all the work done on the original while the duplicate is stored for safe keeping. Vital storage space is always at a premium, and through microfilming we have minimized this problem. We now destroy each account card at the end of the 6-month period, and thus eliminate the need for vast filing space.

The complete history of each account since the Credit Union's inception in February, 1936, is on film. All account cards except the ones being worked have been destroyed.

When statement time rolls around at the end of each quarter, we merely have to send the quarterly batch of film prints to Remington Rand's continuous enlargement service for processing. Paper enlargements are returned to us for mailing out to members. The enlargement shows each transaction made on the member's account during the quarter just passed. We get our film back for our active files, and we still have a duplicate tucked away for added safety precautions.

Under the old method of preparing the statements it required on an average of 180 man-hours of work all at time and one-half rates. The microfilming equipment has reduced this to roughly 10 man-hours work per quarter.

In addition to marked savings in clerical costs, the Film-a-record equipment has enabled us to step-up our operating efficiency, exercise better administrative control, and provide greater security for our records. Considering the permanency of these records, the elimination of the storage problem, and a vast saving in time and labor expense, we estimate our costs have been reduced by at least 50 per cent.



Ohio Independents photographed during recent convention.

Telephone Association Activities

Ohio Association President Weldon Case urges industry to "do a 'bang-up' job of serving subscribers" . . . Wm. A. Kern re-elected president of New York association . . . B. W. Saunders elected president of Illinois association.

Ohio Convention

OHIO INDEPENDENT Telephone Association President Weldon Case, Hudson, opened the 57th annual convention of the Ohio group at the Deshler-Wallick Hotel, Columbus, with a warning that the telephone industry in Ohio, as well as over the nation, is faced with more serious problems and ones of greater consequences than ever before.

"We are faced," he said, "with the problem of trying to render telephone service to a people who are ever conscious of the increasing benefits of the telephone in a world where material shortages are a real thing, where increasing costs of material and labor are such that they pear our operating revenues to a point dangerously low. And, we have an additional problem—that of having someone else lurking over our shoulders. In the event we do not do a good job, and in the event we do not take care of our service requirements, they are always willing and ever ready to step in and do the job for us. By doing the job for us, of course, the only thing they ask is for us to sacrifice our free enterprise system, give up our management powers, and turn all that over to the federal government—the telephone division of the REA."

Mr. Case reported that in Belmont and Monroe counties, in southeastern Ohio, where a number of small Independent telephone companies have been operating over the years, a cooperative was formed and an application presented to the Commission for a certificate of convenience and necessity to operate in areas which were then assigned to operating telephone companies.

"You can all see exactly the immediate threat which this made to our industry", he said, "and our Association took up the fight immediately. In the subsequent hearings it developed that about all these people really wanted was telephone service, and we as an industry have a very real responsibility to see that they get telephone service, or, as I say, someone else is going to provide it for them . . ."

Emphasizing that the need and the situation exists whereby certain telephone companies, operating within the State of Ohio, are not rendering what the public feels is an adequate type of service, Mr. Case said, "We have been complacent too long. Those additional lines which you should have built to take care of those additional people who had made application for service, must be built."

Mr. Case said the makeup of a

well run telephone company, centers around three big functions—"first, we must have an adequate rate, second, we must have a sound financial structure, third we must have the will to serve the public which we are bound by law to serve to the best of our ability."

Discussing adequate service, Mr. Case said, "If individual line service is what the people want and they are willing to pay the rate for it, then that area will not be served adequately until those people have been provided with the type of service they want. . . . Let's not get by with the minimum requirements. Let's go out and really do a job. Let's serve the area adequately in our own minds and in the minds of our subscribers. . . ."

"If people are getting good telephone service", he said, "and you need additional rates to render that service, there is no problem. No problem whatsoever. I have yet to hear in any case before the Commission in the last three years any one situation where there was any complaint against the rates, with the exception of an Ohio Bell Telephone Co. case and that objection was political in nature. The complaint is against the service. . . . The point is that you are not serving the area adequately. You are not providing individual line service where they want it. You are not providing five parties to a line instead of 10. You are not even providing 10 parties, you are providing more than that. So, let's sit down and think in our own minds, talk it over with our people, find out what they do want. Let's not stand behind a few laws which we have, and say—'I don't have to give you any better service than you are now getting'. Let's take stock of our own positions at home. Let's do a bang up job of serving the area which we purport to serve."

Robert L. Moulton, chairman of the Ohio Public Utilities Commission, and commissioner Ray O. Martin and Ralph A. Winter, discussed "Regulatory Problems of The Commission" at the opening Ohio convention session.

Chairman Moulton told the convention that most people don't make complaints unreasonably. "Most of your subscribers", he said, "are good people who are busy and wouldn't bother with all the trouble of coming to the Public Utilities Commission unless they had a good reason. So when a person comes to you with a complaint, admit it. Try to do something about it instead of dodging the issue, as is so often done. Try to fix the man's trouble instead of claiming that it doesn't exist. Try to give good service, and you'll find that you will meet with far fewer objections when you come before the Commission for a rate increase."

New York conventioners shown above are (l to r.) S. Fred Nixon, Westfield; Hamilton A. Cunningham, Albany; Wm. A. Kern, Rochester, and Wm. P. Hollis, Clifton, N. J.

Mr. Moulton stated that every employee who comes in contact with the public is a company representative.

"To the public," he said, "he is not John Jones, a lineman. He is the telephone company. And the way *he* acts has a great deal to do with the treatment *you're* going to get at the hands of the public."

Suggestions made by Mr. Moulton included: (1) School long-distance operators in the rules of common courtesy; (2) run contests among employees, for the best courtesy records, or a public contest for the best letter on an example of courtesy shown by a telephone company employee; (3) take the time to make employees help the public to like the company; and, (4) make sure office managers, superintendents, etc., know, at all times, exactly what plans are in store for their operating areas.

The second day of the convention featured the plant and traffic conferences. The plant meeting was in charge of Peter Galanka, Lorain Telephone Co., and the traffic conference was presided over by W. B. Crays, Portsmouth, Ohio Consolidated Telephone Co.

Industry members taking part in the plant conference were: J. I. Hunt, Middlefield; Walter Lee, Chicago; Floyd L. Green, Canton; Sam Kraus, Covington; E. R. Arnold, Fairview; and J. H. Ludden, Columbus.

Participants in the traffic conference were: Phyllis Ziegler, Marion; Madeline Marvin, Mansfield; and George R. Canning, Avon Lake.

At the final general session the convention heard reports of the activities of the Plant Equipment Committee by Chairman Peter Galanka, Lorain Telephone Co.; Public Relations Committee, by Chairman R. R. Waltz, Delta Home Telephone Co.; Traffic Committee, by Chairman W. B. Crays, Portsmouth, Ohio Consolidated Telephone Co., and Small Company Committee, by Weldon W. Case, Hudson.

Other speakers at the final session were: W. A. McCracken of the Kellogg Switchboard & Supply Co., Chicago; Thomas W. McMahon, assistant cashier, Chase National Bank, New York; Leon Roberts, vice presi-

(*Please turn to page 66*)

QUOTE

"Human destiny is dependent on voluntary self-control, on human intelligence and integrity, on an inward energy. . . .Our salvation lies wholly within ourselves. It cannot be gained or guaranteed by 'enforceable laws', statute books, constitutions, commandments or any of the rest of the paraphernalia of external controls."—*(Brownsville (Pa.) Telegraph).*

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Telephone people know where telephone money goes, of course. But how about telephone customers?

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In fact, half of the amount obtained in any rate increase goes for taxes.

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Taxes are necessary . . . you couldn't run a city, state or nation without them. But they do mount up.

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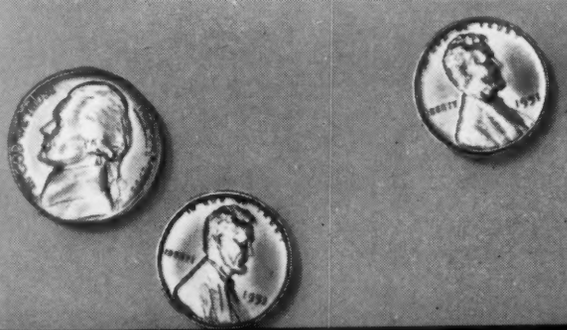

dent, Ohio Consolidated Telephone Co., Portsmouth; R. R. Waltz, Delta Home Telephone Co., Delta; Mrs. Betty Braewnig, Northern Ohio Telephone Co., Norwalk; Mrs. Hazel Augustine, Ohio Associated Telephone Co., Marion; and Miss Nannie Bartee, Ohio Consolidated Telephone Co., Cambridge.

Directors reelected by the convention are: H. E. Hageman, Lorain; Gustav Hirsch, Columbus; James I. Hunt, Middlefield; David McC. McKell, Chillicothe; J. C. Park, Kenton, and C. E. Williams, Marion.

Officers elected by the directors are Mr. Cole, president; R. R. Waltz, Delta, first vice president; C. E. Williams, Marion, second vice president, and Lloyd C. Wright, Columbus, secretary-treasurer.

New York Convention

ALL OFFICERS and directors were reelected by the New York State Telephone Association at the opening business session of the 30th annual convention in the Mark Twain Hotel, Elmira, May 20-21.

Officers reelected are: President, William A. Kern of Rochester; Vice President, S. Fred Nixon Jr. of Westfield; Treasurer, Fred C. Goodwin Jr. of Rochester; Secretary-Assistant Treasurer, Don W. Walker of Shortsville; and Executive Secretary, Hamilton A. Cunningham of Albany.

The following directors were renamed: George S. Beckwith of Keeseville, M. L. Sperry Jr. of Walden and Mr. Walker, all for two years; Frank D. Fancher of Middletown, Mr. Kern, Louis H. Meyer of Johnstown, William A. Seely of Norwich, and Harold C. White of Jamestown, all for one year terms.

Mayor Emory Strachen, who welcomed the independent telephone companies' officials to Elmira, was presented with a gold umbrella to commemorate the "fine" weather which the members enjoyed for their pre-convention golf at the Elmira Country Club Tuesday afternoon. Despite the all-day rain, 45 members toured the Country Club course.

President Kern in his address at the opening session, stressed the competition among the Independent companies to give the best possible service at the lowest possible price.

Mr. Cunningham, the executive secretary, in his annual report, said the Independent telephone companies in New York State are far ahead of any other state in the matter of financing, service and economic strength.

Executive Secretary Cunningham reported to the convention that the

Mayor Emory Strachen (second from right) greeted delegates to the 30th annual convention of the New York State Telephone Association and guest speaker at the opening business session at the Mark Twain. From left to right, A. N. Seward of Jamestown; Hamilton A. Cunningham of Albany; Spencer B. Eddy of the New York State Public Service Commission; and William A. Kern of Rochester, president of the association.

Group photograph of New York Conventioners.

Association has continued its efforts in searching for new sources of capital for the smaller companies and in helping the smaller company in accomplishing its financing program.

"One large banking firm," he said, "has only recently expressed a sincere interest in participating in this field and has affiliated with us as an associate member. In 1951, 16 telephone companies appeared before the Public Service Commission in finance cases involving $320,453 in common stocks, $552,300 in preferred stock, $2,734,000 in mortgage bonds or secured notes and $755,000 in notes debentures and certificates. Only one financing program, amounting to a $122,000 mortgage has been handled by way of government funds through the telephone loan program of R. E.A. All the rest of this financing has been placed through private sources."

Mr. Cunningham stated that the Association also continued to assist the smaller telephone companies in negotiating rate increases on an informal basis without the benefit of formal rate cases and the incumbent costs connected therewith.

"Twenty-four such rate increases were granted Independent telephone companies in 1951 to provide approximately $292,000 in added annual revenues," he said, "in addition, formal rate cases were settled for one Independent telephone company and for the New York Telephone Company, which will provide more than $57-million added annual revenues. But, some companies still lag behind in this matter of rates. We urge you not to wait until it is too late to give your rate schedule proper consideration. You are entitled to earn a fair return on invested capital and you need not be apologetic about it."

The principal talk at the opening session was given by William P. Hollis of Clifton, N. J., telephone sales manager of the Federal Telephone and Radio Corp. He said the "outlook for the telephone business in the U. S. never looked more promising.

"The spreading population," he

(Please turn to page 68)

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Wherever planes fly, wherever planes land, ISE is ready to offer a helping hand. Radio aids to air navigation—including "DME," the automatic equipment that gives the pilot continuous distance-readings—help speed the aircraft on its way. The famed "ILS" instrument landing system guides it safely to the runway. Airport lighting systems, radio beacon systems, omnidirectional ranges, any needed communications including point-to-point microwave links and ground-to-air transmitters—all are available quickly, economically from International Standard Electric Corporation.

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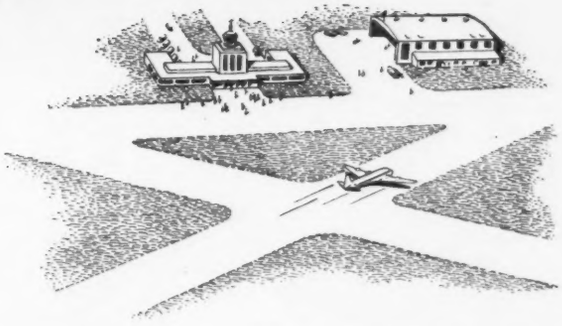

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said, "and the decentralization of industry will particularly favor the areas now served by the Independent companies."

"Recognizing that we are looking ahead to a promising period of telephone growth," he said, "let us examine together briefly in what method the partnership between the operating companies and the manufacturing companies can be even more closely intertwined. Both the operating companies and the manufacturers serving them are confronted with an ever changing set of conditions which provide their individual problems, day to day, month to month, and year to year. We as manufacturers have never been able to get into a position where we had what might be called shelf stock for immediate delivery.

"You are all well aware of the pent-up demand which existed for telephone equipment immediate postwar and that, at the outbreak of the war in Korea, the equipment already in use was extremely low. As a result of the pent-up demand, NPA restrictions, and other factors, we are still in a period of abnormal demands upon all manufacturing facilities. We are saddled with the problem of an ever increasing requirement for telephone equipment for our commercial companies and, at the same time, to provide millions of dollars worth of specialized equipment for the various branches of the Armed Services as well as various types of communication equipment for oil and pipe line companies and other industries.

"It is more important than ever at this time that we plan ahead together in order to meet all of the demands being made on the telephone industry. This is not easily done. However, close cooperation can assist greatly the manufacturers' ability to surmount all of the production problems of the present day."

Discussing some of the prime factors which are affecting a company's ability to obtain equipment, Mr. Hollis stated, "The first of these factors is the availability of raw materials."

"As you know," he said, "the telephone industry is considered part of the essential utilities group and must be maintained in order that other phases of the normal economy, as well as our defense program, can run smoothly. Delivery of raw materials is still a very uncertain factor in our overall planning. This uncertainty is magnified somewhat when our end product is partly dependent upon other suppliers. We have the problem of getting all the materials we need. That is a big job in itself these days. We have to keep at it all the time. It is, therefore, highly desirable that the forecasts of Independent telephone operating companies be as accurate as possible in order that the manufacturer can make more accurate his forecast and plan his purchases of raw materials."

Officers and directors of the Illinois Telephone Association.

Traffic Conference, held during Illinois Convention, drew a record registration.

Mr. Hollis stated that the metal supply outlook for the future is encouraging.

"We have already," he said, "had reallotment of steel and aluminum, and copper is in much better shape than was thought possible two months ago. In general, a continuing slack demand for durables on the part of general consumers is responsible for this condition. It appears that metal supply in the foreseeable future will be at least adequate to meet demand in the months ahead. The recent relaxation in metal supply suggests that by the end of this year the supply should be adequate to cope even with the major increases in the durables demand. There is indication that the price of raw materials may not be due for much further inflation. There are recurring rumors of an ending of all controls."

Speakers appearing at the second general session were: R. C. Reno, vice-president and editor, Telephony Publishing Corp., Chicago; Spencer B. Eddy, commissioner of the New York Public Service Commission; and Abraham Klainbard of New York City, a wage stabilization specialist.

Mr. Klainbard told the convention that Wage Stabilization regulations are meant to be self-administering and will usually tell an employer what increases he can pay without going to the Wage Stabilization Board.

"In cases not under the regulations," he said, "the employer or the employer and the union may petition the board to make adjustments which the parties believe to be fair and non-inflationary.

"In doubtful cases, employers can consult the nearest Wage and Hour office for advice or a written ruling on whether a petition is needed."

Klainbard said that most of the

(*Please turn to page* 70)

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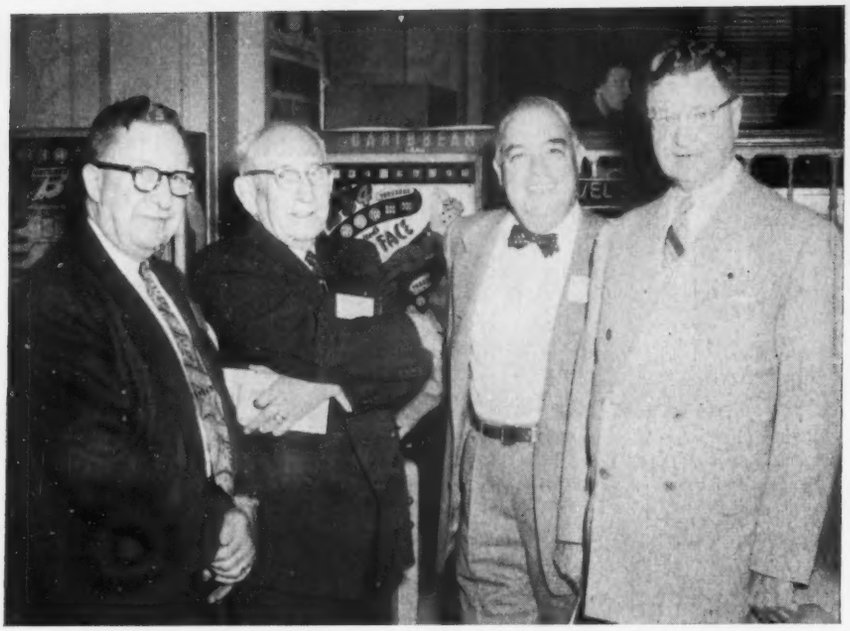

Members of this Illinois convention group are (l. to r.): Ben Schweitzer and R. B. Still, Bloomington; Ray W. Smith, Chicago, and Walter Dakin, Madison, Wis.

board's work consists of adopting general wage control policies or passing on petitions which tell an employer whether he may or may not give a wage increase.

Between 55 and 60 per cent of the voluntary petitions sent to the Board for approval come from non-union employers. The industry, labor and public members of the board have made unanimous rulings in 93 per cent of all cases handled.

Klainbard pointed out that field offices of the Wage and Hour Division serve as informational centers for both the Office of Salary Stabilization and the Wage Stabilization Board.

Congressman Leo W. O'Brien of Albany was the featured speaker at the May 22 session. Other speakers were: Emil Pastore, assistant vice president of the New York Telephone Co.; Donald C. Power, president of the General Telephone Corp., New York.

The concluding convention featured a "Small Company Clinic." Speakers were: Clifford Sayer, Chatham; Don W. Walker, Shortsville; Fred W. Howting, Jamestown and Alton F. Bradner, Middleton.

Illinois Convention

SPEAKING at the opening session of the 1952 convention of the Illinois Telephone Association, President Harry H. Bates, Dixon, warned that despite the telephone industry's accomplishment record, "there are socialistic minded politicians down in Washington who appear to be trying to undermine our present system of private initiative operation and bring the telephone system under government control. . . "

"The plan", he said "seems to be to first gather in as many small telephone groups as possible into units and then afterwards gradually knock over the larger ones as their power and influence expands. This has been their method in invading the electrical power field where already they have eliminated privately owned power systems in the entire state of Nebraska and most of the state of Washington."

Mr. Bates stated that the recent convention of the National Rural Electric Co-operative Association in Chicago, Mr. Wickard of the REA and Governor Stevenson of Illinois cited U. S. census figures on farm telephone development to support their contention that there is a great need for the Government REA telephone loan program. They said that many people were startled when the 1950 census showed fewer farms with telephones than in 1920.

"Such statements naturally tend to lead the public to believe that the number of farm telephones per farm is on the decline", Mr. Bates said. "They imply that the telephone industry has not kept pace with the growing requirements of the American people."

Commenting that such statements are basically false, Mr. Bates stated that in the Census Bureau before 1920, "almost any house that had a berry patch or a vegetable garden in the back yard was called a farm". By 1950, the Census Bureau put the

(*Please turn to page 72*)

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number 56...
low cost, but with the high standards of all
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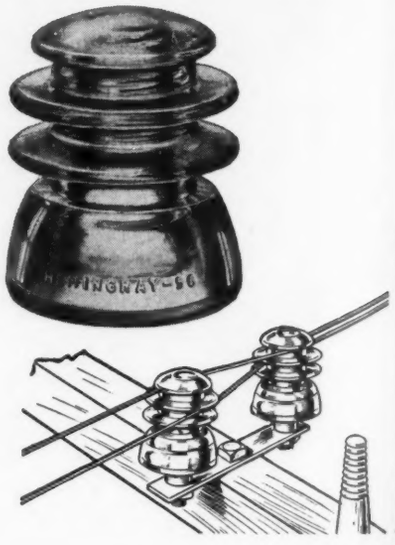

Hemingray's popular "Number 53" now has a new, lower-priced companion—Number 56. Like its larger counterpart, "56," when used in point transpositions, requires no special hardware and goes on standard pins.

Tested by the A.S.T.M. (method D-468-42), it meets the product specifications of utility companies and maintains the high level of quality which has made all Hemingray insulators a standard in the communication industry.

Packed: 40 to a carton, weighing 59 lbs.

Manufactured by American Structural Products Company

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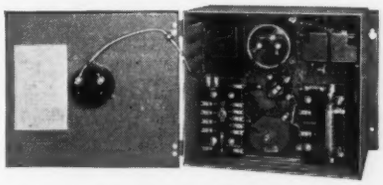
With no moving parts, the Raytheon RectiFilteR requires neither adjustment nor maintenance. It will outlast many sets of batteries, release wires carrying charging current from central office to subscribers' PBX boards for revenue producing service, and minimize power cost because of high efficiency in converting from AC to DC.

Dry disc rectifying units and other components are designed for long-life, trouble-free service. The Raytheon RectiFilteR will end your telephone power problems. Just plug it in, close the door —and forget it!



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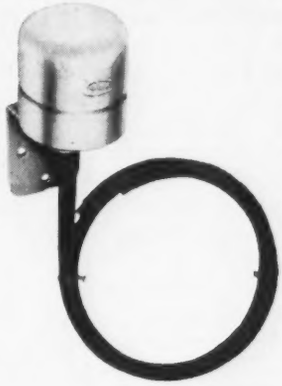

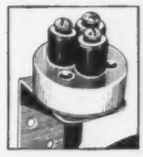

Unit with alloy cover removed to show porcelain base and position of carbon electrodes.

In the event of contact between power and communication circuits, the Cook HI-CAP carries the fault current long enough to allow the power breakers to operate and de-energize the power circuit.

Certified tests show that the current carrying capacity of the HI-CAP is in excess of 750 DC Amps. for three seconds; 550 DC Amps. for four seconds, and 400 DC Amps. for five seconds. These protectors can be spaced along exposed lines to provide desirable lightning protection.

The Cook HI-CAP Power Cross Protector has three carbon electrodes with fusible elements which melt and further reduce the impedence of the fault current path when the fault current continues over a long period. They are easy to mount on poles or crossarms.

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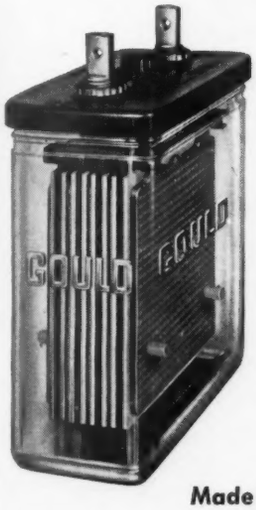

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In the Planté, *all* of each positive plate is pure lead, containing *no* antimonial impurities. Thus, Gould has eliminated the primary cause of self-discharge, capacity losses and shortened battery life. Planté batteries float at constant voltage and maintain rated capacity all their life. Because they almost never need service, maintenance is negligible. If you would cut battery costs to a minimum, choose Planté.

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real farms in a classification by themselves. This showed over a million difference in so-called farms in 1920 and farms in 1950."

"Now", he said, "when the berry patch farmhouse was taken out of the farm list, its farm telephone also was taken out of the farm list, and this gave the basis for the story to tell the farmers their number of telephones had decreased during the last 30 years and therefore they now need the unselfish help of the government. The actual fact is that the percentage of telephones per farm has increased from 25.04 in 1940 to 38.3 in 1950 or instead of a decrease, as stated by Mr. Wickard and Governor Stevenson, it is an increase of over 13% during these 10 years."

Mr. Bates emphasized the proportion of farms with telephones in Illinois increased from 49.5% in 1940 to 65.4% in 1950 and pointed out that residential telephone development in rural areas in Illinois is almost equal to that in the cities.

"Sometimes", he said, "these 'promoters of government supervised telephone system' mention how many small telephone companies went out of business during the 1920 depression because of lack of money and thus deprived farmers of their telephones. They forget to mention that prior to 1920 was a period of inflation in which many farmers went into the telephone business without any telephone experience because it looked easy. Then they declared out all their depreciation reserve money as dividends, and further when their plant was used up and their money all gone, because there was no individual incentive behind the project, they quit.

"However, the depression of 1920 also washed out a lot of other poorly managed businesses that had no relation to the telephone industry as well. And, furthermore, if any depression wiped out 75% of our present telephones under private initiative, we would still have more telephones per person left than they have with the government operated telephone systems in Europe today . . . To expect the Government to make any actual improvement over what we are now doing is as foolish as to expect somebody to improve present night messages service by crossing carrier pigeons with hoot owls."

Mr. Bates stated that if the Government is "really interested in our welfare, let them cut out our excise taxes, cut down federal taxes, and let us alone."

"We have already demonstrated", he said, "that we can make more forward progress in one year than any government bureaucracy can make in a generation."

Retiring Pres. Harry Bates presents gavel to newly elected Illinois association Pres. B. W. Saunders.

Ben B. Boynton, general counsel for the Illinois Telephone Association, told the convention—"The number one policy, and I might also say problem, of a telephone company is to give good and adequate service to every person in the territory it undertakes to serve who desires its service and is willing to take this service under the company's rates, rules and regulations. These rates must be just and reasonable not only to the public but to the security holders."

"The telephone industry as a whole", he said, "has the same policy and problem for the entire country. It wants everyone in the United States that desires telephone service in accordance with the applicable rates and regulations furnished that service. It hopes that time will arrive. How to accomplish this is one of our problems. Service is furnished by a large number of companies. Adjoining companies may have contiguous boundaries, overlapping territory or unoccupied territory, telephonically speaking, between their territories. Contiguous boundaries are the desirable situations. Overlaps are uneconomic. Experience has shown that duplication of facilities is wrong in the telephone business. Unoccupied territory presents the problem of getting telephone service into that territory."

Mr. Boynton stated that the Illinois Commerce Commission is considering the question of whether or not it should require every telephone company to file a map for each of its exchanges showing the exchange boundaries. Preliminary conferences have

(Please turn to page 84)

Coming Conventions

California Independent Telephone Association, Biltmore Hotel, Los Angeles, June 19 and 20.

Washington-Oregon Independent Telephone Association (Joint Convention), Hotel Davenport, Spokane, Wash., June 23 and 24.

Michigan Independent Telephone Association, Olds Hotel, Lansing, Sept. 19.

Arkansas Telephone Association, Arlington Hotel, Hot Springs, Sept. 15 and 16.

Tennessee Telephone Association, Hotel Hermitage, Nashville, Sept. 17 and 18

Rocky Mountain Telephone Association, Newhouse Hotel, Salt Lake City, Utah, Sept. 18 and 19.

United States Independent Telephone Association (annual convention), Conrad Hilton Hotel (formerly the Stevens), Chicago, Oct. 13, 14 and 15.

North Carolina Independent Telephone Association, Carolina Hotel, Pinehurst, Oct. 23 and 24.

Georgia Telephone Association, Henry Grady Hotel, Atlanta, Oct. 27 and 28.

South Carolina Independent Telephone Association, Clemson House, Clemson, Oct. 30 and 31.

Virginia Independent Telephone Association, Roanoke Hotel, Roanoke, Nov. 6 and 7.

Alabama-Mississippi Independent Telephone Association, Jefferson Davis Hotel, Montgomery, Ala., Nov. 10 and 11.

Florida Telephone Association, Orange Court Hotel, Orlando, Nov. 13 and 14.

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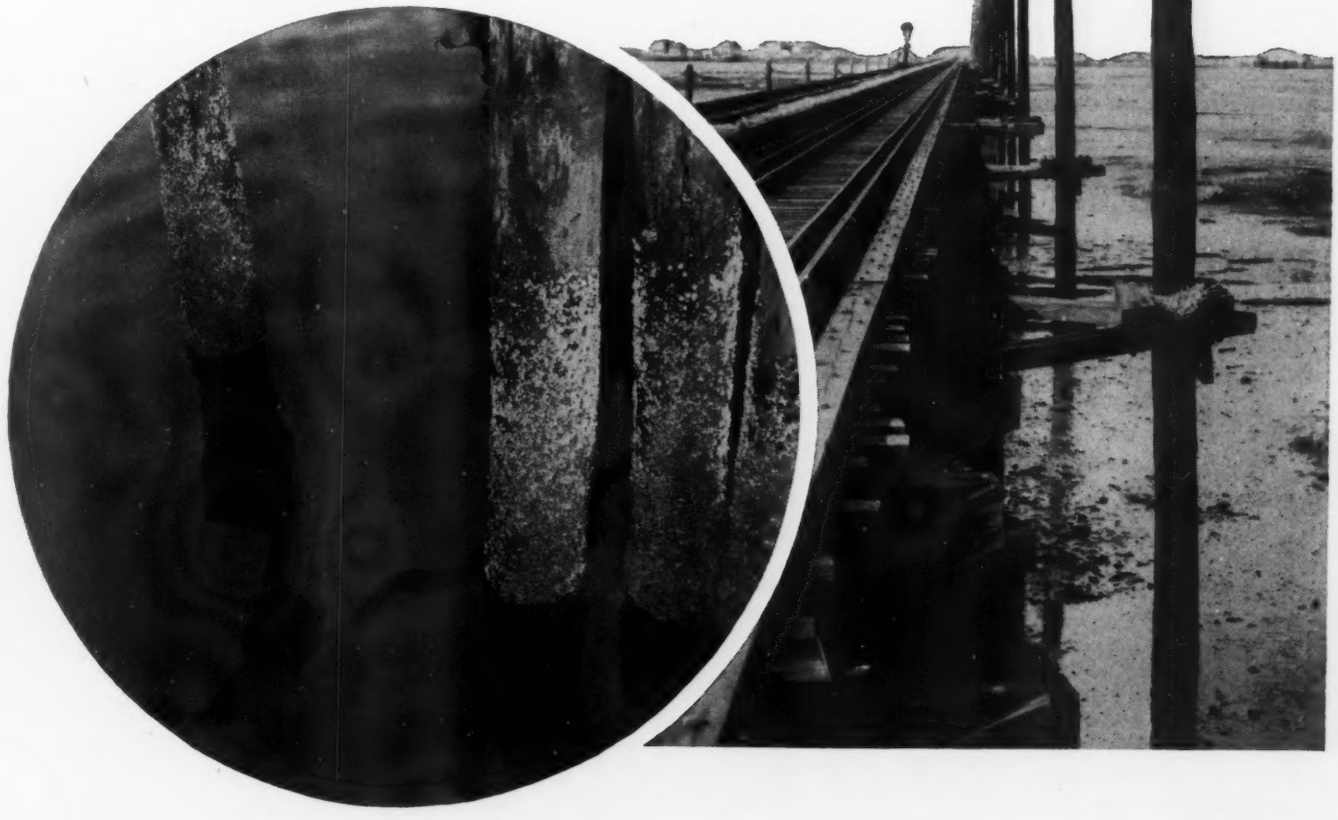

U·S·S CREOSOTE OIL

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UNITED STATES STEEL

Questions and Answers

Edited By JAY G. MITCHELL

In this issue Mr. Mitchell discusses—(A) Rectifiers and Motor Generators in Parallel; (B) Circuit for Tone; (C) Duplex Ammeter Calibration; and (D) Characteristic of Simplex Circuit.

QUESTION:—Can rectifiers be used in parallel with Motor Generator sets for battery charging? If so can the rectifier be used to automatically supply the current required over and above the output of an ordinary direct current generator?

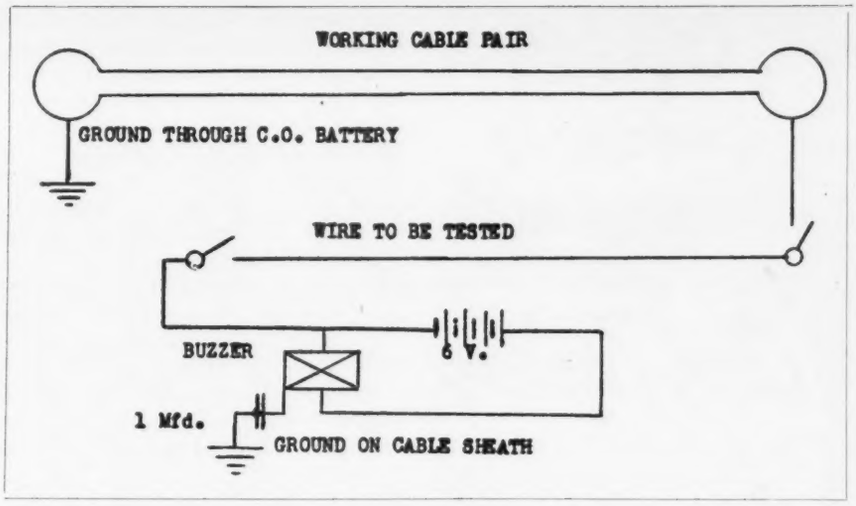
ANSWER:—This inquiry enters a field of speculation that must be thoroughly understood before any reply can be made. The factors involved are, amongst others, the characteristics of the motor generator, the charging plan, whether cycle or floating, the type and regulatory equipment of the rectifier, the degree of close attention that can be given to the operation and the presence or absence of an effective overload and underload circuit breaker in the output circuits of the motor generator, the rectifier and the battery. It is suggested that this inquiry be directed to the manufacturers of rectifier equipment for consideration and answer.

It must be remembered that the output voltage of the rectifier has the same *peak value* as the alternating circuit input less only the *drop in the rectifier equipment* itself. In all probability the motor generator is compound or over compound wound so that its output voltage is a function of its output in amperes. Also if the battery is floated its counter electromotive force during charge varies with the load drawn by the switching equipment. This of course would provide three varying voltages in parallel each of which varied for a reason different from that affecting the others.

It would be my advice that the suggested arrangement should be attempted as an experiment, if at all, rather than as a definitely approved arrangement. It is quite possible that rectifier manufacturers might supply a different answer and I may receive some suggestions from that source. The inquiry might be offered why such an arrangement should be considered in any event.

QUESTION:—In the figure below is the way the cable splicer tests his working telephone lines and identifies the cable pairs. Both men will hear a clear buzzing tone if they meet on the same line.

This hookup will work, but if the ground is disconnected the buzzing will continue but no buzzing tone will be heard on the line that the men were on. This indicates that the



key to this hookup is the condenser and ground hooked to the cover of the buzzer and is working through induction but I cannot explain how it works. I would appreciate it very much if you could clear this problem for me.

ANSWER:—This inquiry which comes from a telephone man located in one of the far away islands of the Pacific affords the opportunity of pointing out a condition which is puzzling to this correspondent but will be instantly clear to him when it is realized that the pair under test, as shown in the circuit sketch schematic, is a *working telephone metallic circuit* with 22½ volts, presumably the Central Office Battery, in one side of the cable pair. When the switch is closed at the test set it connects one terminal of the test buzzer to one conductor of the pair under test while the opposite terminal of the buzzer is connected through a condenser to earth. The operation of the buzzer creates a tone on the cable pair under test through a circuit traceable from the terminal of the buzzer to the cable pair to the 22½ volt Central Office Battery to *earth* at the telephone office to the condenser of the test set to the other terminal of the buzzer. With the test head telephone connected to earth both men will hear this tone when they contact either conductor of the working cable pair or the line under test if clear and not open. When the earth connection at the terminal of the test set is opened the buzzer is still in operation but the tone cannot reach the cable pair under test through the Central Office Battery ground as before. If the inquiry has not been correctly understood please write in again. The schematic is reproduced above as a check.

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IF YOU'D like quick help and technical and helpful opinion on some question, a postcard will bring you a reply. Or if you're in a hurry, please send along a stamped self-addressed envelope for immediate reply.

QUESTION:—Assuming that the conductor and battery size in a Central Office are adequate but the load exceeds the range of the Discharge Ammeter will it be possible to parallel the present shunt with one of like value and consider the ammeter reading as half the actual amperes being drawn from the battery and generating equipment?

ANSWER:—This inquiry is one of several propounded at telephone conventions and later submitted in writing. While the answer is obvious it appears to be in order to answer the direct inquiry and then to add some comments that may save this telephone company from some future serious trouble.

In order to increase the range of the ammeter calibration to twice its present value the proper method is to insert a *resistor* of the same value as the internal resistance of the ammeter into the cord leads which extend from the ammeter shunt to the instrument. The resistance of the ammeter can be obtained from the manufacturer by writing and giving the serial number if the serial number can be seen on the instrument.

However the only safe method to follow is to install a switch on the front of the power switchboard *plainly marked* and so wired that its effect when operated will be to select the calibration desired and to *have*

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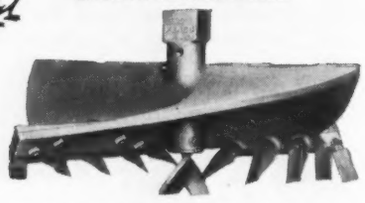

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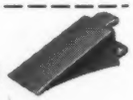

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the ammeter instrument dial calibrated for the two different ranges. The added switch should plainly show by its position which calibration was being used. Even when this has been done a careless operator might easily overlook the indication of the switch with serious damage to some of the equipment. To attempt to operate two ranges without plain front of the board indicators is very inadvisable and risky in my opinion. Under the circumstances outlined in the inquiry it is strongly recommended that the switch be so installed as to make the higher current values the ones *normally indicated by the dial in circuit.*

QUESTION:—We have wired a metallic circuit as shown below. We get a ground reading on each side of the metallic circuit of 500 *ohms until we lift the grounded jumpers. Should you get this grounded reading on the metallic circuit if it is wired up correctly? We used a diagram you sent us on August* 3, 1951. *Stamped and directed AIR-MAIL envelope enclosed.*

Note: This inquiry was accompanied by the sketch mailed to this company with the reply to its original inquiry showing how to connect the Kellogg number 21-*A repeating coils into a metallic circuit in order to obtain an additional grounded phantom. The inquiry and the sketch showing the proper coil connections was published in the August* 15, 1951 *issue of TELEPHONE ENGINEER FORTNIGHTLY. The sketch is being returned herewith.*

ANSWER:—In the sketch which accompanied the present inquiry from this company the connections of the repeating coils are correctly shown as they were given in the answer to the original inquiry. That is to say that each of the connected telephone offices the outgoing metallic line circuit is connected to repeating coil terminals numbered 3 and 6; the metallic line inward to the switchboard to repeating coil terminals numbered 1 and 8; repeating coil terminals numbered 2 and 7 are connected together with a short jumper; while repeating coil terminals 4 and 5 are connected together with a short jumper and *also connected to the ring side of the switchboard line circuit that has been assigned to the new grounded phantom.* The tip side of this line circuit must be connected, of course, to the earth ground for the office. The grounded phantom should talk somewhat better than the metallic circuit unless, being a grounded circuit, it is made noisy by a parallel with some disturbing supply cir-

cuit. The reading of 500 ohms is about correct if the connected drops at the two switchboards in parallel are of 500 ohms resistance. A circuit can be easily traced from either side of the metallic circuit through the line wire and the two drop windings *in parallel*. This should show a value of the resistance existing over the wire of the metallic circuit, through the windings of the repeating coils and the two switchboard drops of the grounded phantom circuit of a little over 500 ohms unless the metallic circuit is a long one. That is based upon the assumption also that the two switchboard drops on the grounded phantom circuit are of 1,000 ohms resistance. Of course when the grounded jumpers are opened at both terminal switchboards this ground is also opened and the metallic circuit should be clear until the jumpers are replaced in the circuit.

In the sketch, as received, there is a telephone bridged on the metallic circuit between the two terminal switchboards. This is a bad practice and will be serious if this telephone has any earth connection such as might be required for selective party line ringing to ground. The reply to this inquiry has been delayed for which I am very sorry.—THE END.

"Good Press Relations Don't Just Happen"

(*Continued from page 56*)

which will directly benefit you. If you have a tip of any kind, pass it along. You'll win the city desk's appreciation, and that is a valuable thing to have in the bank against the day when a publicity peg of immediate benefit happens along.

(3) Don't insist that your company name be included in every paragraph—or at all if the reporter deems it unimportant as far as story value. Let him be the judge.

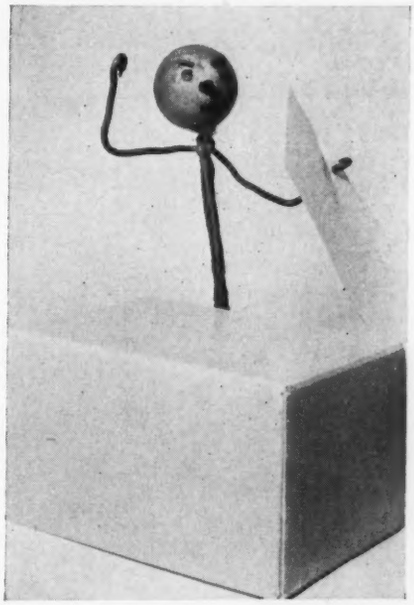
(4) Treat all papers impartially. Even if the *Tribune* is the paper you read, don't make the error of ignoring the *Gazette* when you have news to report. See that releases and phone calls reach all papers at the same time. But if one newspaper approaches you, that's a different thing. Then your duty is not to call competitors. If the break originates with you, treat all comers alike.

(5) Don't think that newspapers are the beginning and end of the publicity media. Get acquainted with program directors, leg men and commentators from the radio stations too. Cultivate local free lance writers. Keep in with the editors and staff of local magazines.

(6) Meet and get on friendly terms with departmental editors (building editor, home editor, etc.) and with columnists.

(7) If you have time and know how to do it, try to prepare a release or a kit of facts to hand out to the reporters. It will help them to their jobs with less leg work and fuss. A professional publicity man can be of assistance here if the budget will afford his fee.

(8) If you make a speech anywhere, have the entire text typed in advance to hand out to the reporters. No matter how witty and interesting the talk may seem to you, they've been listening to speeches all of their professional lives and would much prefer to go out for a drink. A convention assignment is usually greeted with groans in any city room.



If you deliver a speech anywhere, have copies of the address typed in advance to give reporters. They're more likely to use YOUR material that way.

(9) Pictures pay off. The paper may not be able to spare a photographer on every occasion. There is a good chance that if you furnish a picture, it will be used. Instruct any commercial photographer you hire that he has to work with the speed of a newspaper photographer—tomorrow will be much too late. Inquire about picture deadlines and see that the photos you furnish get to the desk in time.

These suggestions, if followed, will help you to build contacts and make yourself a friend of the press.—THE END.

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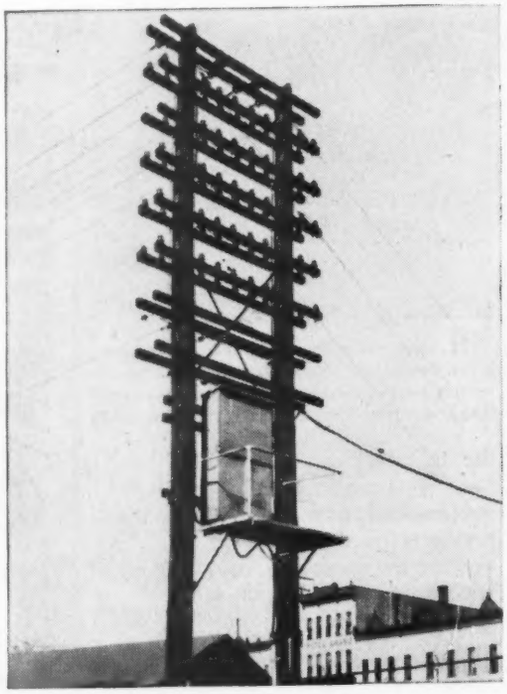

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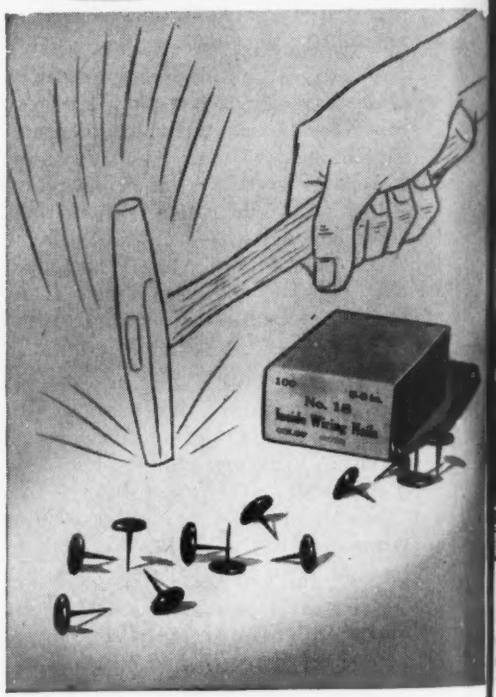

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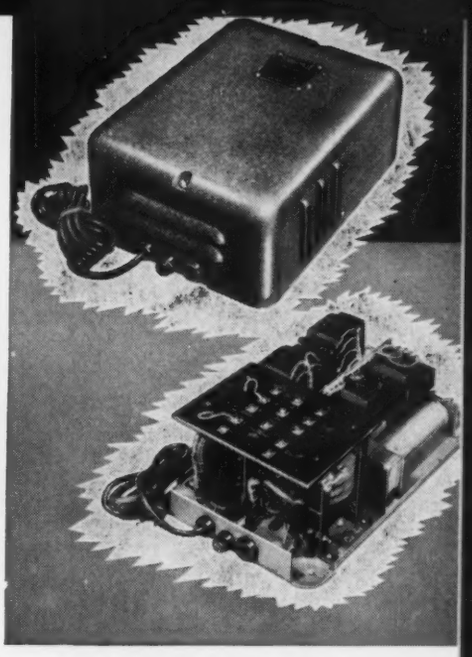

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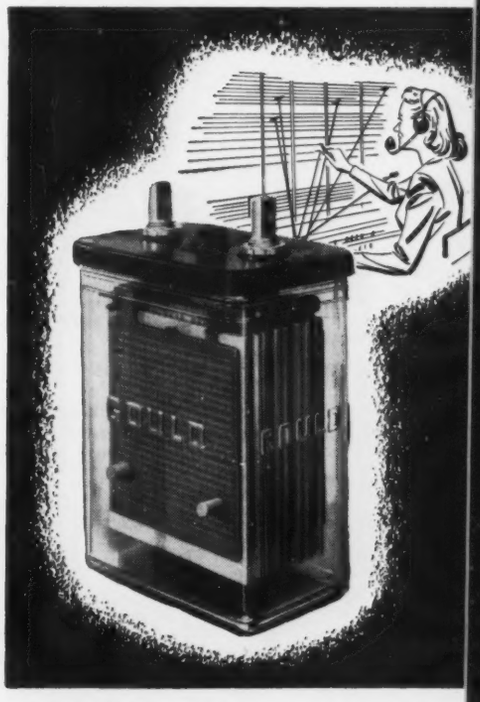

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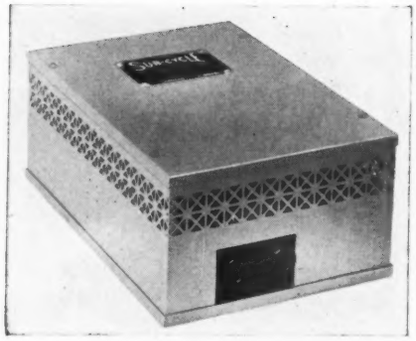

Fig. 138—Sub-Cycle Model BX-60 static frequency converter for medium duty ringing service (up to 1600 stations.)

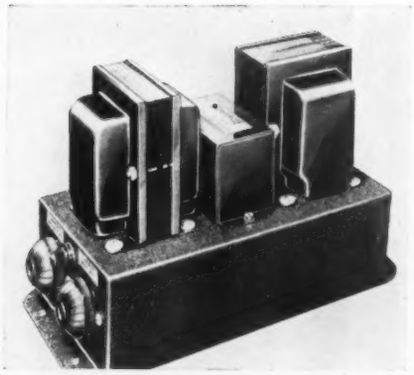

Fig. 139—Sub-Cycle Model M7.5-60 static frequency converter for light duty ringing service (up to 100 stations).

Fig. 140—Sub-Cycle Model CC-60 static frequency converter for heavy duty service (up to 4000 stations).

Section X-B of Mr. Reed's article continues a discussion of various types of ringing equipment, including rotary pole changers, vibrating pole changers, alternating current converters, tuned reed converters and static converters.

By JOHN S. REED
Lincoln, Neb.

THE TERTIARY, winding keeps the reed oscillating through the choke coil, the contacts, the reed, the motor frame, motor coil and resistor, output terminal and back to the winding.

With the contacts open, the output circuit is traced from one end of the secondary winding directly to output terminal, and from the other end of winding through the lamp resistor directly to the output terminal or through a resistor to the same terminal. In this case, the secondary winding delivers current to the output terminals through the lamp resistance. When the contacts are closed, the tertiary winding is connected through the reed contacts to the end of secondary winding with the two windings opposing each other. The tertiary winding produces approximately twice the voltage of the secondary winding. Thus, when the contacts are closed and the two windings are connected series bucking, the secondary voltage cancels half of the tertiary voltage, resulting in the tertiary winding becoming the effective source of delivery.

With the reed contacts closed, the output circuit is traced from one end of secondary winding directly to its output terminal. The other end of the secondary winding is connected to the motor frame, from there through the contacts to the end of the tertiary winding, through this winding to the output terminal on the high output end, or through resistor to the output terminal on the low output end. In this case, the output circuit is completed from the output terminals through the two windings in series opposing to the contacts. The shunt circuit lamp resistor carries current from one end of the secondary winding to the terminal when the contacts are open and by-passes some of the current from the tertiary winding when the contacts are closed. As the reed closes the circuit one-third of each sweep and opens it two-thirds of the sweep, the secondary supplies the voltage for two impulses of the impressed frequency when the contacts are open, while the tertitary winding furnishes the voltage during one-third of each sweep when the contacts are closed, delivering an impulse in the reverse direction to the output terminals, this being possible as the voltage is twice that of the secondary winding and is flowing in the opposite direction.

This converter has a conservative peak rating exceeding 30 watts, and a single machine should carry a ten-position switchboard. Where the load is greater than the capacity of one machine, two or more can be operated in multiple by connecting like terminals of each machine together. When so connected they will be self-synchronizing and the power is increased in proportion.

It is more practical, however, to divide the load between two or more machines. For example, if two converters are required, one may be connected to the odd numbered positions and the other to the even number positions. In that way the whole switchboard is not out of ringing power should trouble develop in any one position.

The converter is protected against short circuits in its low output connection, but when the full output capacity of the machine is used, it is recommended that a tungsten lamp of up to 60 watts be connected into each branch ringing circuit feeding from the converter.

Other types of Telering converters are also available for operation on other voltage sources. The Type C operates on 24 volts a-c, and the type D on 24 volts d-c. The Type D unit has only one contact, using the standard vibrator assembly. It is housed in the same case as the other types and with the exception of having no lamp, it is the same in appearance.

The Sub-Cycle static frequency changer illustrated in Figures 138 to

(*Please turn to page* 83)

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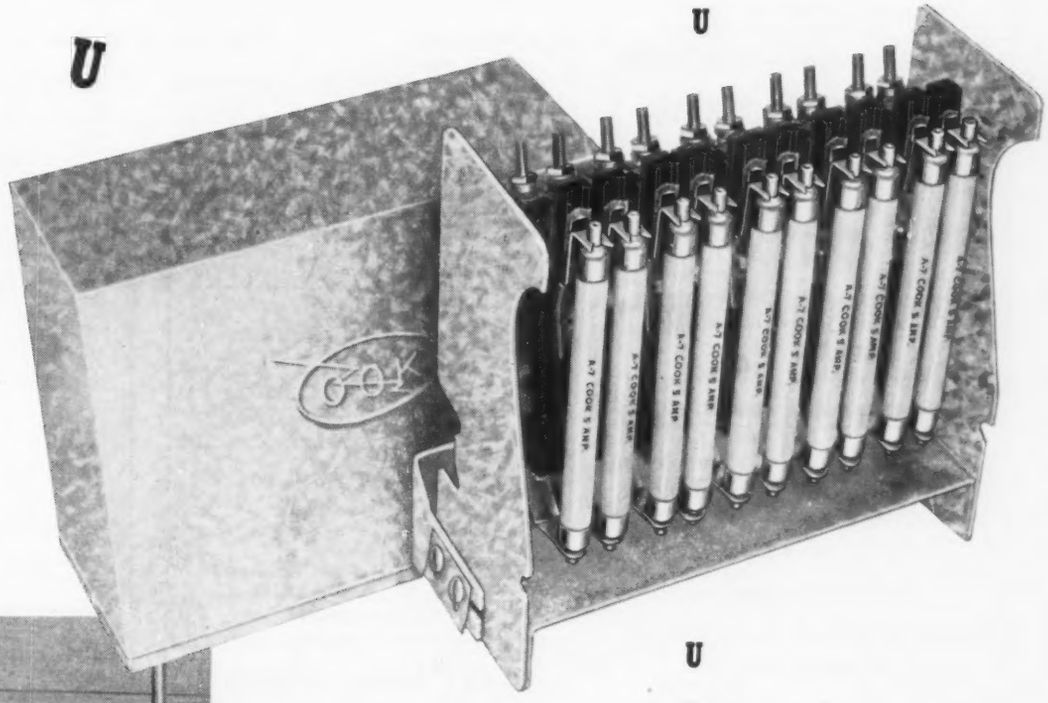
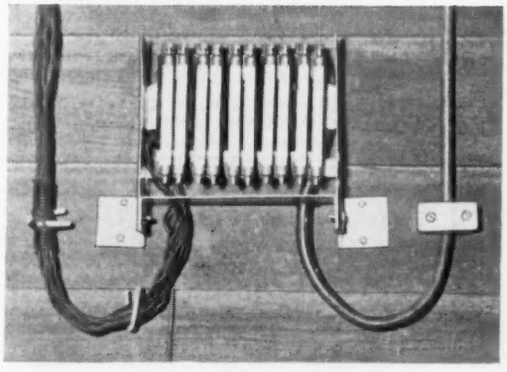


Mounting brackets are so arranged that the base unit may be brought to a horizontal position to facilitate wire connections.



When connections are completed the entire unit is raised and secured in its permanent vertical position.

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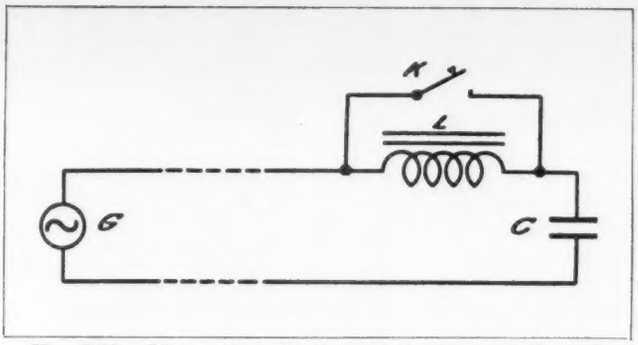


Fig. 141—Illustrating fundamental action of the relay-start type Sub-Cycle converter.

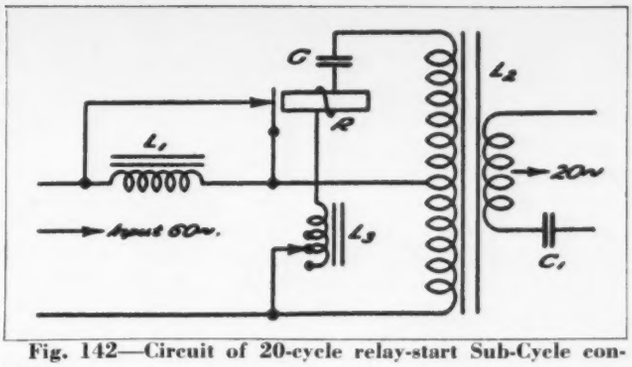


Fig. 142—Circuit of 20-cycle relay-start Sub-Cycle converter.

141 is a highly successful type of converter that changes the 60 cycle commercial alternating current directly to a 20-cycle ringing current without the use of a vibrating mechanism. The circuit elements of the converter are static and there are no moving parts. No maintenance routines, lubrication, and replacement of worn parts are required.

The conversion to one-third of the input frequency is accomplished through the action of an inductance containing a saturable magnetic core and a capacitor connected in a circuit with the inductance. Figure 141 illustrates a circuit which demonstrates the fundamental action of the frequency changer. The saturable inductance L is connected in series with the capacitor C to the 60-cycle generator G. Inductance L, when unsaturated, has a high impedance and limits the current in the circuit to a low value, and no frequency changing action occurs.

Switch K is used to start the 20-cycle oscillations. When it is closed, a large charging current flows through the capacitor. The switch is then opened with the capacitor charged. The circuit constants are so proportioned that the natural frequency of oscillation of the saturable inductance and the capacitor is about 20 cycles. The oscillatory discharge of the capacitor through the inductance intermittently saturates the inductance at a 20-cycle rate. Each

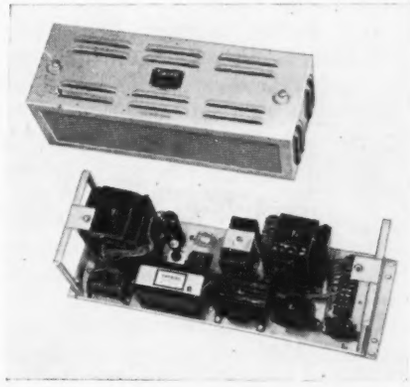


Fig. 144—Sub-Cycle Model BC-20S-23 biased core Sub-Cycle converter.

time the inductance becomes saturated it becomes a very low impedance and allows a surge of current from the generator to pass into the capacitor, recharging the latter and thereby sustaining the 20-cycle oscillations.

The circuit of a 20-cycle converter is shown in *Figure* 142. In this circuit, the switch is replaced by the relay R which automatically shorts the inductance L to start the oscillations. As long as the oscillations continue, the current through C and R keeps the relay contacts open, so that in normal use, practically the only time the relay operates is after an interruption of the 60-cycle supply, when it becomes necessary to restart the 20-cycle oscillations.

The transformer L_2 is used to step up the voltage to the capacitor in order to reduce the size of the capacitor. L_2 also has a saturable core to stabilize the oscillations by providing an automatic tuning action. This arrangement also stabilizes the output voltage at a constant value regardless of variations in the 60-cycle supply voltage.

The small saturable inductance L_3 is a "tone coil" which introduces a reverting tone into the 20-cycle output voltage. The wave form of the converter output with or without the tone is illustrated in *Figure* 143.

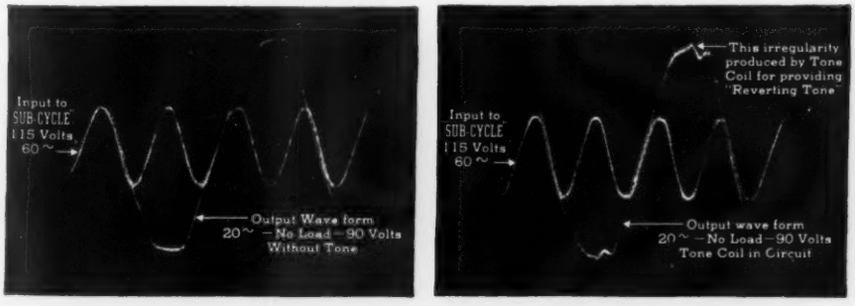
Capacitor C_1 in series with the output protects the converter against overloads by limiting the maximum load current to a safe value. This capacitor introduces relatively little voltage drop under normal loads, so that normal ringing voltage is maintained except when a heavy overload occurs, in which case the output voltage drops rapidly.

The Sub-Cycle "Biased Core" Frequency Changer

ANOTHER type of Sub-Cycle converter (*Figure* 144) changes the 60 cycle input to one-half its original frequency or 30 cycles. The circuit arrangement of this converter differs somewhat from the arrangement previously described, but the fundamental principles of operation can be explained in much the same manner.

If the core of the inductance L in *Figure* 141 is polarized or biased, it reacts differently to magnetizing forces which oppose the polarization than to magnetizing forces which aid the polarization. Polarization of the core reduces the inductive impedance below its maximum value. A magnetizing force which cancels the polarization restores the maximum impedance, whereas a magnetizing force which aids the polarization reduces the impedance still further.

(To Be Continued in the July issue of FORTNIGHTLY TELEPHONE ENGINEER.)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Output Wave form 20~ —No Load—90 Volts Without Tone
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Input to SUB-CYCLE 115 Volts 60~
Output wave form 20~ —No Load—90 Volts Tone Coil in Circuit

Fig. 143—Wave form of Sub-Cycle converter output. Left—Without tone coil in circuit. Right—With tone coil in circuit.

(Continued from page 72)

been held between the staff of the commission and the Commercial Committee of the Illinois Association on the question.

"My impression", he said, "is that the commission will order such maps to be filed after further conferences with the Association's Commercial Committee on the most practicable way. If a company does not have clearly defined exchange boundaries, it should get them. It should agree with its neighboring companies on its boundaries. In the event it has a telephone or telephones over the line in the other company's territory, it should freeze that service to the present subscriber or subscribers. If in the future such frozen telephone is given up, it should not reinstall a telephone at that location for a new subscriber. The neighboring telephone company should do likewise in a similar situation.

"Filing these exchange boundary maps should greatly assist the companies in protecting their territories. I do not see how it would increase their obligations. Their obligation is to furnish telephone service to anyone in their territories who desires such service and is willing to pay the company's rates and comply with its rules and regulations. That is the company's present obligation. That obligation still remains if a map is filed. The only difference is that there is a public record showing the territory."

Referring to companies providing rural service by means of switching lines, Mr. Boynton stated that the Illinois commission has ruled several times that the territory occupied by these switching lines is a part of the territory served by the exchange, and territorial maps should include as a part of an exchange territory the area served by these switching lines.

"If there should be unoccupied territory adjacent to a company which the company later desires to serve," he said, "it would be increasing its undertaking to serve and the company should get a certificate of convenience and necessity from the commission authorizing it to serve this additional territory. This is a simple procedure. The State Highway Department has good maps of each county in the state of Illinois. The exchange boundary lines can be drawn on such maps. Your secretary, Mr. Hardy, will be glad to get such maps for you."

Discussing the adequate service problem and the problem of serving unoccupied territories, Mr. Boynton stated they are principally problems of finance.

"I am not a financier", he said, "but if private business is to furnish all telephone service in Illinois, it must solve this financial problem. People desiring telephone service and willing and able to pay for it should get it. The industry should do its best to provide this service. Advances have been made in the field of financing small telephone companies. Further advances are needed."

J. G. Hardy, secretary of the Illinois Association, reported that during the past year five district meetings were held with a nattendance of nearly 700.

In arranging these meetings, he said, "efforts were put forth to provide a program of interest to all telephone companies by presentation of new developments in the telephone business, as well as providing for talks and discussions dealing with mutual problems of our telephone neighbors with a view towards giving assistance to one another."

Appearing at the second convention session, Walter T. Fisher, chairman of the Illinois Commerce Commission, declared that the "strongest barrier against government ownership of a monopoly is the existence of an effective regulatory commission."

"The sound principle of only one telephone company in a town is now well established", Mr. Fisher said, "Suppose there were no regulations. Suppose the company set its own rates. Then suppose somebody else advocated municipal ownership or some other ownership. Would there be an answer to it? In my opinion if a utility that is a monopoly set its own rates, the demand for government ownership would be absolutely irresistible."

Discussing the commission's various regulatory activities as they effect telephone utilities, Mr. Fisher observed first that when a territory is not served by any utility, the Illinois Commerce Commission believes it has the power to compel service there by companies operating in adjacent territories.

In a significant comment on rate regulation he said that while the traditional method of determining rates uses return on investment as its basis, this method was developed in connection with utilities having a relatively large amount of invested capital as compared with income and might not apply equally to all companies.

"With such companies", Mr. Fisher

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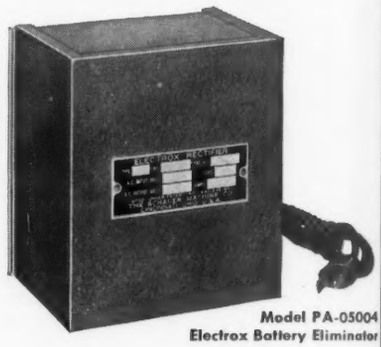
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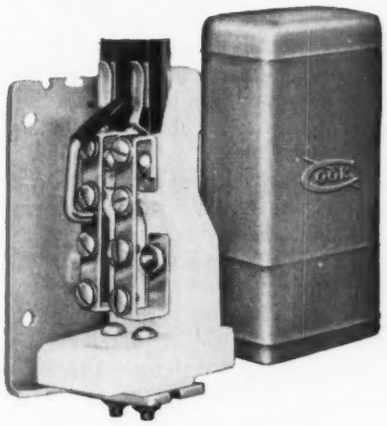

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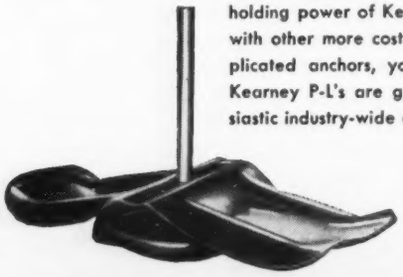

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pointed out, "the basic problem is to provide a return that will raise capital. I do not know how far this theory is good economics for small telephone companies. Of course, it is necessary to provide a return that will keep capital in the business. But, in addition, the return must be large enough to attract good management, to enlist the interest and energies of really good businessmen. It seems to me that a company with a small investment, giving good service at rates low compared with those of other companies, ought not to be held down by traditional methods of calculating return on investment."

Mr. Fisher cautioned the companies against asking the commission to consider, in rate cases, expected demands for wage increases or any wage rates not actually in effect.

"I know it is tempting to tell employees that the increase will be all right with you if the commission will raise rates", he said. "But if we follow the practice of raising rates to pay future wage increases, what would be the effect on the employees' demands?"

Earl O. Ehrhardt, division commercial manager, Upstate Division, Illinois Bell Telephone Co., told the convention the idea or philosophy of considering the customer's problem in an individual rather than a routine way —of giving the customer a little X-tra service—of giving him service that is not only good, but is BETTER than good, applies to all phases of the telephone business.

The final speaker at the second convention session was Mrs. Mayme Workman, executive secretary of the Independent Telephone Pioneer Association.

Donald C. Power, president of the General Telephone Corp., New York, speaking at the third convention session, emphasized that there is but one solution to the industry's major problem—"reprice our service to bring our rates in line with present-day economic conditions. . ."

"I should like to observe", Mr. Power said, "that in some measure our failure as an industry to secure the earnings which we ought to have rests with us. In many instances, we have been too slow to recognize our need for additional revenue and in many cases even after we have recognized that need, we have been delinquent in our pursuit of a remedy."

Mr. Power emphasized that in many cases industry members have not been as aggressive as they should have been, and by failure in these respects have neglected obligations to the public and to shareholders.

"We have neglected our obligations", he said, "to the public because by our failure to secure adequate earnings, we have impaired our financial strength and thus lessened our ability to expand and improve our facilities to meet the public demand; and, of course, we have been neglectful of our interest to our shareholders because we have not preserved the integrity of their investment."

Other speakers appearing at the final session were: Clyde S. Bailey, executive vice president of the United States Independent Telephone Association; Dr. William M. McGovern, Northwestern University, Chicago.

The association's annual Traffic Conference was presided over by M. A. Kugler of the Okaw Commercial Telephone Co., Okawville. Those taking part in the conference were: Leota Ridings, toll methods supervisor of the Illinois Bell Telephone Co., Chicago; Clyde C. Boylls, supervisor of toll service, Illinois Bell Telephone Co., Chicago; R. B. Thomas, chief engineer of the Illinois Commerce Commission.

The convention re-elected the following directors: R. A. Lumpkin, Mattoon; A. T. Renn, Chicago; Burton W. Saunders, Springfield; R. B. Still, Bloomington; E. L. Decker, Park Ridge; H. H. Butler, Bloomington; Gordon Aller, Chicago; and Russell Logue, C. T. & N. Telephone Co., Casey.

Officers elected by the Board of Directors are: Burton W. Saunders, president; Ray J. Alter, vice president; R. B. Still, treasurer; Ben B. Boynton, general counsel; and J. G. Hardy, secretary.

COMMISSIONS:

Kyle D. Williams Leaves Missouri Commission

MISSOURI Public Service Commissioner Kyle D. Williams, a member of the Special Telephone Commissioners during the entire postwar period, resigned from the regulatory agency effective May 15, and has returned to the private practice of law.

Mr. Williams had served with the commission since 1941, and Governor Smith declared in accepting his resignation that his "separation from the state's work will be a loss, both to the commission and to the state of Missouri."

There has been no indication as to who Mr. Williams' successor on the Telephone Committee will be. He will be appointed by J. C. Darby of South Carolina, NARUC President during the current year.

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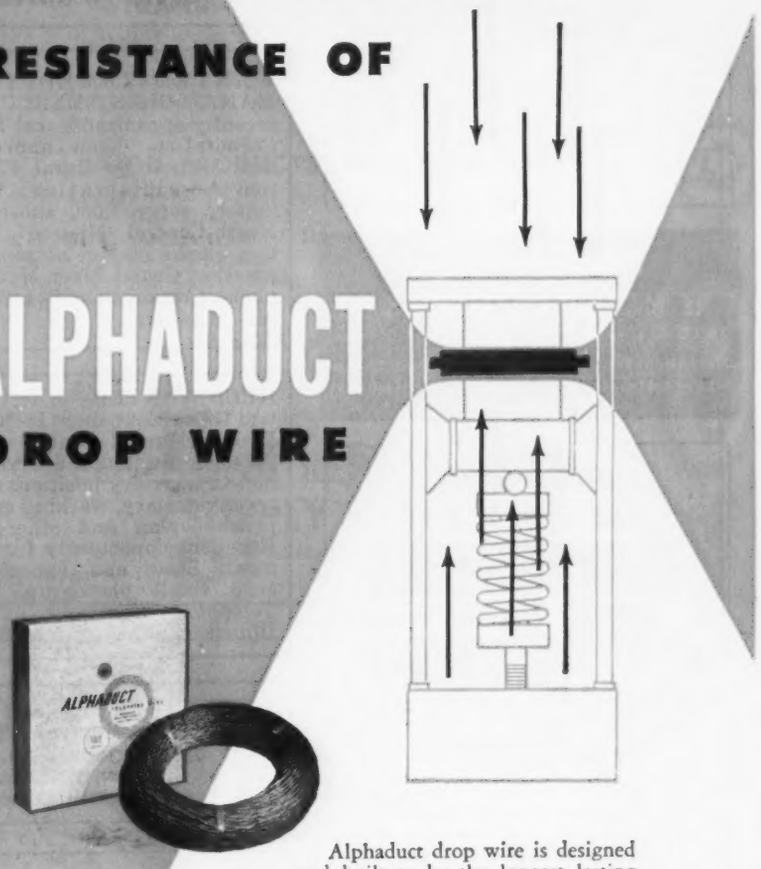

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POSITION DESIRED with telephone organization. Fifteen years' experience in Engineering, Maintenance, Installation, Central Office Equipment, Western Electric, Automatic Electric, and Stromberg-Carlson equipment. Able to handle cutover, conversion problems, set up routine procedures. Ability to train personnel. Contact Box #8788, c/o Telephone Engineer Publishing Corp., Chicago, Ill.

POSITION WANTED—YOUNG MAN with more than 20 years experience in dial and manual central office equipment, and possessing executive ability, seeks position with operating company as plant or business manager. Reply to Box 8785, c/o Telephone Engineer Publishing Corp.

POSITION WANTED—A Retired Telephone Executive with 49 years of continuous experience in all phases of the telephone business, with good health and a splendid personality desires employment in the telephone field. Can furnish the best of references as to ability, character, and integrity. William W. Johnson, 1021 W. 22nd Street, P. O. Box 82, Kearney, Nebraska.

VETERAN, World War II, age 31, seeks permanent position as Wire Chief, Equipment Inspector, Equipment Manager or equivalent. Nine years experience installing, maintaining and repairing Strowger automatic telephone equipment. Now in charge of a telephone network of twelve (12) Strowger automatic telephone exchanges in West Indies. Also have three years approved college work BS Education and 5 years experience as high school instructor Industrial Arts subjects. Will be back home within 2 months. Please address: Veteran WWII, 87-01, 57th Avenue, Elmhurst, Long Island, New York.

Wanted To Buy

WANTED—Good used Western Electric or Kellogg Switchboard to serve up to 250 city subscribers CB and up to 250 rural subscribers Magneto, with or without main frame and batteries. Write T. O. Berge, 3501 16th Ave., South, Minneapolis, Minnesota.

PRICED FOR QUICK SALE

NEW—Type C X 200-A North Electric Automatic Switchboard, Equipped with 200 Lines, 16 Links.

5—W. E. Comp. Type Trunks.
6—N. E. Comp. Type Trunks.
Ten and Twenty Party Code Ringing.

Write Box No. 8789
c/o Telephone Engineer
Publishing Corp.

INVENTORY CLOSEOUT SPECIALS

Description	Price
HARDWARE	
#29958 5/8" x 8" Oval Eye Bolts	.40 ea.
#29960 5/8" x 10" Oval Eye Bolts	.42 ea.
# 6448 2 Bolt Medium Guy Clamps	.27 ea.
# 6449 3 Bolt Medium Guy Clamps	.38 ea.
# 7020 20" Crossarm Braces	.20 ea.
# 7028 28" Crossarm Braces	.28 ea.
STRAND — ANCHORS — RODS	
#88135 8"-8 Way Chance Expanding Anchors	2.55 ea.
# 64 6"-4 Way Chance Expanding Anchors	1.90 ea.
5/16" Siemens-Martin 7 Strand Guy Wire	37.18M. ft.
1/4" Siemens-Martin 7 Strand Guy Wire (250 ft. coils)	26.50M. ft.
WOOD PRODUCTS — INSULATORS	
1 1/4" x 8" Locust Pins	.06 ea.
1 1/2" x 2" x 10" Oak Brackets	.04 1/2 ea.
1 5/8" x 2" x 12" Oak Brackets L.D.	.05 1/2 ea.
2" x 2 3/8" x 12" Oak Brackets W.U.	.06 1/2 ea.
# 9 Single Groove Glass Insulator	.06 ea.
#12 Double Groove Glass Insulator	.07 ea.
MISCELLANEOUS	
#6715-1 Kearney Snub-r-Grips (for drop wire)	.16 ea.
#5694-7 Kearney Bridge or test connectors	.16 ea.
#1000H Reliable Outdoor Protectors	1.94 ea.

TELEPHONE REPAIR AND SUPPLY CO.

Daniel H. McNulty, President

1760 Lunt Ave. Chicago 26, Illinois

For Sale

FOR SALE

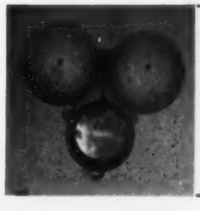
500 Late Model Stromberg-Carlson Telephones with harmonic ringers, Nos. 1243 & 1250. None over five years old ..... @ $12.00

Ten 11 pr. Cook Unprotected Terminals with stubs .....@ $11.20

1100 lb. of #14 Line Wire. 85 HTL @ 10c per lb.; 80 ft. of 101 pr. silk and cotton 22 ga. cable @ 90c per foot; 1315 feet of 26 pr. cable, 24 ga. tape armored @ 30c per foot; 1020 feet of 101 pr. 24 ga. tape armored cable @ 65c per foot.

One manhole casting and cover @ $25.00

WESTERN TELEPHONE COMPANY
Breckenridge, Minnesota



Rebuilt, Refinished.
Loud ringing bells. 1000 or 2500 Ohm @ $8.00 each. With Condensers @ $9.00 Each.
F.O.B. Chicago, Ill.
INDEPENDENT TELEPHONE REPAIR CO.
2137 W. 21st St.
Chicago 8, Illinois

Like New—Replacement Parts, Kellogg Mfg.
Ringers, Harmonic type, 33-1/3—50—66-2/3 Cycle. 30—42—54—66 Cycle, @ $1.00 each
Coils for above, 500 Ohm each. @ .50c each.
Induction Coils. Common battery. #79—#99, @ 50c each. #103 type. Anti-Side Tone, with connector strip. @ $1.00 each
Receivers, Kellogg. #41 type Complete, W/cord @ $1.25 each
Common Batt. Steel ringer boxes. #610—#602—#600 @ $3.50 each
INDEPENDENT TELEPHONE REPAIR CO.
2137 W. 21st St., Chicago 8, Ill.

For Sale

FOR SALE—Two 3,000' reels of 11 pair—19 Ga. Western, Paper Wrapped, Subscriber Cable. Immediate delivery. Luthersburg Telephone Co., Luthersburg, Penn.

FOR SALE—Leich 600 series CB telephones with 16-30-42-54 & 66 Cycle ringers, none over 18 months in service. Standardizing and these will be surplus. Write Box No. 8786, c/o Telephone Engineer Publishing Corp.

FOR SALE—Magneto exchange. Approximately 300 stations. Priced to sell. Modern residence. Good toll business. Location, Southeast Kansas. Write Box 8787, c/o Telephone Engineer Publishing Corp.

FOR SALE—New 20" galvanized cross arm braces. $22.00 per hundred. Ask for quantity prices and freight allowances. Fortune's Equipment, 1231 Broadway, Fresno, California.

USE TELEPHONE ENGINEER AND MANAGEMENT'S CLEARING HOUSE
To locate workers—jobs—merchandise. A small ads covers the field.

Buyers' Directory

ACETYLENE EQUIPMENT—"Prest-O-Lite" No. 1 Lineman's outfit helps you do a better job, quicker and easier. The Linde Air Products Co., 30 E. 42nd St., New York 17, N. Y. —[ADV. 1]

ADVERTISING, Directories—General Telephone Directory Co., 604 Pine Ave., Long Beach, Calif., and 185 N. Wabash, Chicago, Ill.—[ADV. 2]

ANCHORS, Plastic Expanding, Universal. All Purpose—Mount in any Material, Holub Industries, Inc., 424 DeKalb Ave., Sycamore, Ill.—[ADV. 3]

ANCHORS & WIRE CONNECTORS—Matthews Scrulix Anchors, Matthews Telephone Wire Connectors. Write for bulletins. W. N. Matthews Corp., St. Louis 16, Mo.—[ADV. 4]

AUGER—The "Alaska Frost Auger." Free trial on your own machines. Henning Electric Motor Co., P. O. Box 786, Fargo, N. D.—[ADV. 5]

BATTERIES, Dry Cell—The Ray-O-Vac Company, 2317 Winnebago St., Madison, Wisc.—[ADV. 6]

BATTERY—WATER UNITS Demineralizers for Tap Water—A. E. Tomkin & Co., 1828 Columbia Rd., N.W., Washington 9, D. C.—[ADV. 7]

IF YOU DO not see a listing in these columns of products or services you are interested in write "Buyers' Directory", 7720 Sheridan Road, Chicago 26, Illinois, for such information. It will be furnished quickly and without charge.

BELTS — CLIMBERS — COMPLETE LINEMEN'S EQUIPMENT, W. M. Bashlin Co., Bashlin Bldg., Grove City 1, Pa.—[ADV. 8]

BELTS — CLIMBERS — PLIERS — SAFETY STRAPS—CONSTRUCTION TOOLS. Klein & Sons, Mathias. 3200 Belmont Ave., Chicago 18, Ill.—[ADV. 9]

BOOTHS—Acoustic Telephone—Sherron Metallic Corp., 1202 Flushing Ave., Brooklyn 6, N. Y.—[ADV. 10]

BOOTHS—Churchill Cabinet Co., 2119 Churchill St., Chicago 47, Ill.—[ADV. 11]

CABLE, All Plastic, Aerial, Duct, Direct Burial, PBX, Switchboard.—The Ansonia Electrical Co., Ansonia, Conn.—[ADV. 12]

CABLE SPINNING—The Cable Spinning Equipment Company, 432 Crane St., Topeka, Kans.—[ADV. 13]

CARRIER EQUIPMENT—Adler Telephone & Telegraph Carrier Equipment has been standard for twenty years in the Independent Field. Mfd. only by Southern Electric & Transmission Co., 3127 Holmes St., Dallas, Texas.—[ADV. 14]

CONNECTORS, CABLE—Cannon Electric Development Co., 3209 Humboldt St., Los Angeles 31, Calif.—[ADV. 15]

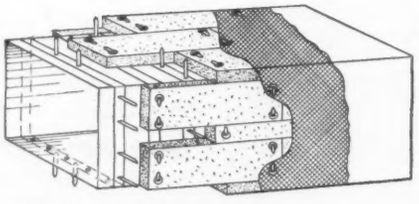
CORDS, Instrument and Operators—Commercial Cord & Supply Co., 26 Main St., Clifton Springs, N. Y.—[ADV. 16]

CORDS, Switchboard & Telephone—Runzel Cord & Wire Co., 4727-31 Montrose Ave., Chicago 41, Ill.—[ADV. 17]

CROSS ARMS—American Cross-Arm, Inc., 141 W. Jackson Boulevard, Chicago, Ill.—[ADV. 18]

"EARTH BORING MACHINES" Sterling Model "A"—Precision Engineered and Hydraulic Controlled. Sterling Engineering & Mfg. Co., 173 Gilligan St., Wilkes-Barre, Pa. —[ADV. 20]

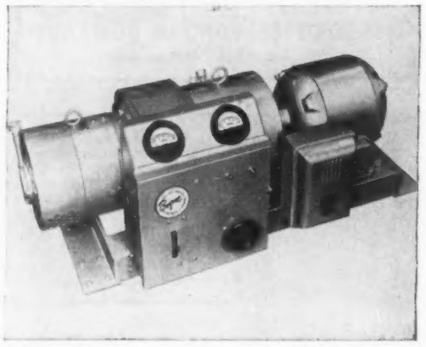
ELECTRIC HOT WATER HEATERS. Thermostatically controlled for any hot water heater, Vulcan Electric Co., Danvers 17, Mass.—[ADV. 21]



NEW STRAPPING

All types of insulation materials are applied quickly, economically and permanently to pipes, ducts, tanks and flat walls with a new metal strapping called Finger Strap, developed by A. J. Gerrard & Co. The new strapping is ¾" wide in thicknesses from .015 to .035. ¼" wide tapered fingers are spaced at intervals of 5 to 12 inches as specified, and serve to secure the insulation. Finger Strap is applied around tanks, ducts or pipes with a Steelbinder Strapping Tool. It can also be nailed or screwed to a wall or other flat surface. Once fastened, the steel fingers are lifted outward to a 90° angle and the insulation impaled on them. A slit Finger Strap washer is then slipped on the finger tip protruding through the insulation, and the protruding tip is bent firmly back against the washer. The whole operation requires only a few seconds.

Finger Strap is available in continuous coils in plain steel, galvanized, stainless 430, or monel. The fingers are from 1⅜" to 4½" in length as specified. They are easily raised to impaling position yet are amazingly rigid. A 5/32" hole adjacent to each finger permits fastening to flat surfaces with nails or screws. Full information on this new strapping is available on request. Check New Product 423.



POWER SYSTEM

For the prevention of interruptions of vital communications and signaling services due to failure of electric power, a continuous power generating system is being offered by the Bogue Railway Equipment Division.

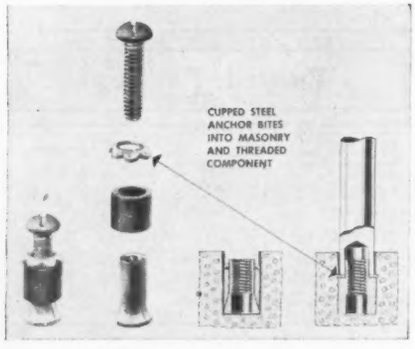
The Bogue continuous system is designed to eliminate power interruptions. It consists of a three unit motor-generator set and an automatic control unit. The motor generator set is composed of an alternating current motor, alternating current generator and a direct current motor directly coupled to each other and mounted on a common base.

Electric power from the normal power source is fed to the alternating current motor which drives the alternating current generator and the direct current stand-by motor. The microwave or other equipment requiring uninterrupted electric power is operated by the electrical energy generated by the alternating current generator rather than directly by the normal power source.

The direct current motor, under normal conditions, serves as a generator for charging a stand-by battery. When the normal power source fails or is even momentarily interrupted, the direct current motor is automatically reconnected to serve as a motor, deriving power from the stand-by battery. The direct current motor takes the place of the alternating current motor as prime mover and causes the alternating current generator to continue rotating without interruption.

The Bogue continuous power system, according to the manufacturers, is applicable to telegraph and telephone systems, railway signal systems, radar, telemetering, radio and television stations and relay systems as well as other services where continuity of service is important.—For detailed information, check New Product 424.

The New Products' Showcase



NEW STEEL AND LEAD ANCHOR

Utilizing the rigidity of steel to supplement lead as an anchoring medium, Super-Grip Anchor Bolt Co. has developed a new screw anchor that is easily installed and provides increased anchorage strength and resistance to vibration. The patented Super-Grip Screw Anchor can be used wherever machine screws, stove bolts or wood

screws must find an anchor in brick or masonry. It provides solid anchorage, prevents loosening and pulling out even under the toughest conditions of vibration or strain.

The principle features are a threaded insert, lead sleeve and a cup-shaped fluted steel anchor. When driven into place, the lead mushrooms out and then the steel anchor collapses, forcing sharp edges into the masonry and the threaded component. Thus steel reinforces lead to make an anchor that won't pull out.

A tamping tool, provided with every 100 anchors, is used to mushroom the lead sleeve and flatten the steel anchor. Super-Grip Anchor Bolt Company also provides a blow tube that is inserted into the masonry holt to completely remove all dust and dirt. This assures solid anchorage against masonry and eliminates binding to loose dirt that results in a weak anchorage.

For catalog and additional information Check New Product 425.

VIBROTEST MODEL 267

Push-button operated instrument, designated as Vibrotest Model 267, has been developed to measure electrical resistance of conductive flooring in accordance with National Fire Protection Association Bulletin 56.

According to the manufacturer the Vibrotest Model 267 is used to test conductive floors where static charges or stray electrical potentials may cause explosions in hazardous atmospheres or materials. Original development work was for testing conductivity of floors in hospital operating rooms. Checks can be made to determine changes in floor conductivity caused by wear, washing, waxing or presence of foreign materials such as grease, iron filings, dirt, etc. Can also be used for electrical insulation resistance measurements as well as wiring continuity and voltage checks.

The unit has ranges of 0-20 megohms at 125 V.D.C. test potential and 0-200 megohms at 500 V.D.C. test potential. Also ranges of 0-20,000 ohms and 150-300-600 Volts A.C. and D.C. Instrument is housed in a welded steel case 12¼ x9"x10".

For complete information check New Product 426.

Buyers' Directory

ENGINEERING, Construction—Neale Construction Company, 432 Crane St., Topeka, Kans.—**[ADV. 22]**

FURNACES—For quickly and economically melting lead and paraffin—Mutual Liquid Gas Equipment Co., Inc., 3600 W. Imperial Highway, Los Angeles, Calif.—**[ADV. 23]**

INSPECTION SERVICE—For poles, crossarms, and preservative treatments. Inspectors stationed throughout U.S.A. A. W. Williams Inspection Co., Mobile, Ala.—**[ADV. 24]**

INSULATORS, Porcelain—Porcelain Products Inc., Box 300, Findlay, Ohio.—**[ADV. 25]**

LIGHTWEIGHT PULLERS—Coffing Hoist Company, 800 Walters St., Danville 5, Ill.—**[ADV. 26]**

PIPE PUSHERS—Giant Manufacturing Co., South 6th St., at 12th Ave., Council Bluffs, Iowa.—**[ADV. 27]**

PIPE PUSHERS—Greenlee Tool Co., 2136 12 St., Rockford, Ill.—**[ADV. 28]**

POLE HOLE DIGGERS—For derrick mounted trucks. Tele-E-Lect Products, Inc., 9613 Minnetonka Blvd., Minneapolis 16, Minn.—**[ADV. 29]**

POLES—Cedar poles and Fir cross arms. R. G. Haley & Co., Inc., Spitzer Bldg., Toledo 4, Ohio.—**[ADV. 30]**

POLES, Southern Yellow Pine—Colfax Lumber & Creosoting Co., Inc., P.O. Box 23, Pineville, La.—**[ADV. 31]**

POLES, Creosoted Southern Yellow Pine and Douglas Fir. The Long-Bell Lumber Company, Wood Preserving Div., R. A. Long Bldg., Kansas City, Mo.—**[ADV. 32]**

POLES, Southern Yellow Pine—Taylor Colquitt Company, 290 E. Main St., Spartanburgh, S. C.—**[ADV. 33]**

POLES, Southern Yellow Pine—Texas Creosoting Co., Orange, Texas.—**[ADV. 34]**

POLES—Texas Best pressure-creosoted poles, Lone Star Creosoting Co., P. O. Box 9, Longview, Texas.—**[ADV. 35]**

POLES—Western Red Cedar, Western Larch, Lodgepole Pine. B. J. Carney & Co., Minneapolis 3, Minn. and Spokane 8, Wash.—**[ADV. 36]**

POLES & CROSSARMS—Creosoted poles and crossarms. Conroe Creosoting Co., Conroe, Texas.—**[ADV. 37]**

PROTECTIVE EQUIPMENT—Reliable Electric Company, 3145 Carroll Avenue, Chicago 12, Ill.—**[ADV. 38]**

PRINTING—Telephone forms, Cullom & Ghertner Co., 600 21st Ave., Nashville 4, Tenn.—**[ADV. 39]**

REBUILT TELEPHONE & SWITCHBOARDS—Telephone Repair & Supply Company, 1760 Lunt Avenue, Chicago 2, Ill.—**[ADV. 40]**

SUPPLIES—New all metal heavy duty extension loud ringers; ready wire reels, payout only and payout and takeup in one.—Suttle Equipment Co., Lawrenceville, Ill.—**[ADV. 41]**

SWITCHBOARDS, TELEPHONES, ETC.—Automatic Electric Co., 1033 W. Van Buren St., Chicago, Ill.—**[ADV. 42]**

TELERING—Telephone ringing by frequency conversion. Voltage range for all purposes, central office and private branch exchanges. Telkor, Box 186, Elyria, Ohio.—**[ADV. 43]**

TRUCK BODIES—Highway Trailer Co., Edgerton, Wisc.—**[ADV. 44]**

TRUCK BODIES AND EQUIPMENT—McCabe Powers Auto Body Co., 5900 N. Broadway, St. Louis 15, Mo.—**[ADV. 45]**

WIRE DROP & INSIDE—Jackets of neoprene, rubber or plastic. Lowell Insulated Wire Co., Lowell, Mass.—**[ADV. 46]**

WIRE, Insulated—DATED DROP WIRE—Neoprene or Weatherproof—Alphaduct Wire & Cable Co., Milltown, N. J.—**[ADV. 47]**

WIRE, Insulated Drop and Bronze or Copperweld—Acorn Insulated Wire Co., Inc., 36 Freeman St., Pawtucket, R. I.—**[ADV. 48]**

WIRE, Insulated Drop, Genuine Ironite—Paragon Electric Co., Two Rivers, Wis.—**[ADV. 49]**

WIRE, Insulated Drop, HT Bronze, Paraprene or Braid Insulation—Paragon Electric Co., Two Rivers, Wisc.—**[ADV. 50]**

WANT INFORMATION??
IF YOU DO not see a listing in these columns of products or services you are interested in write "Buyers' Directory", 7720 Sheridan Road, Chicago 26, Illinois, for such information. It will be furnished quickly and without charge.

SEND IN THIS COUPON FOR MORE INFORMATION

Telephone Engineer Publishing Corp.
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Chicago 26, Illinois

Please forward complete information on the following products and services described in the June, 1952 issue of TELEPHONE ENGINEER AND MANAGEMENT. (Check information desired.)

NEW PRODUCTS

NP 423..... NP 424..... NP 425..... NP 426.....

SERVICES AND SUPPLIES

ADV. 1.....	ADV. 2.....	ADV. 3.....	ADV. 4.....	ADV. 5.....	ADV. 6.....
ADV. 7.....	ADV. 8.....	ADV. 9.....	ADV. 10.....	ADV. 11.....	ADV. 12.....
ADV. 13.....	ADV. 14.....	ADV. 15.....	ADV. 16.....	ADV. 17.....	ADV. 18.....
ADV. 19.....	ADV. 20.....	ADV. 21.....	ADV. 22.....	ADV. 23.....	ADV. 24.....
ADV. 25.....	ADV. 26.....	ADV. 27.....	ADV. 28.....	ADV. 29.....	ADV. 30.....
ADV. 31.....	ADV. 32.....	ADV. 33.....	ADV. 34.....	ADV. 35.....	ADV. 36.....
ADV. 37.....	ADV. 38.....	ADV. 39.....	ADV. 40.....	ADV. 41.....	ADV. 42.....
ADV. 43.....	ADV. 44.....	ADV. 45.....	ADV. 46.....	ADV. 47.....	ADV. 48.....
		ADV. 49.....	ADV. 50.....		

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Company .....

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Here's an insulator that will give you top performance.

Its rugged construction safely supports abnormal loads without breaking or crushing. Careful molding gives it smooth, safe-to-handle seams. It has maximum resistance to thermal shock. And factory tests insure absolute accuracy of thread contour. Finally, each insulator is rigidly inspected before being shipped.

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PERSONALIZED SERVICE

New Capital Markets

(*Continued from page 49*)

throughout April and May. Prices also on the new offerings were better from the issuers' viewpoint. The number of large issues also was noteworthy, that is offerings or placements of $10,000,000 or more. And the new offerings have held their price in the trading markets more firmly than the new offerings of bonds did, most of them; in fact many of the offerings made in the preceding period enjoyed a very impressive price advance. For example, the General Telephone Company 4.75% preferred, offered last December at its par value, 50, has recently been bid 53-54. But this of course was a negotiated deal and as such had a more favorable start than an issue that is the subject of competitive bidding.

Telephone companies, however, have been comparatively inactive in the flotation of preferred stock issues during the past three months.

Common Stocks

COMMENTATORS on the stock market have taken a dim view of the outlook during the past three months, especially the outlook for new offerings of common stocks. Yet the average prices recorded in the trading markets in May were higher than they were at the beginning of March, especially prices of common stocks of railroads and utilities. And new offerings of common stocks during the period have been large and generally successful. Among them may be mentioned the 989,599 shares of American Can Company, the 409,689 shares of Texas Utilities Company, 600,000 shares of Middle South Utilities, 345,822 shares Interstate Power, 800,000 Southern California Edison, 239,578 shares Gulf States Utilities, 200,889 shares Carolina Power & Light, 920,573 shares New England Electric System, 300,000 New York State Electric & Gas, 494,642 shares Virginia Electric & Power. All these were successful offerings.

It should never be assumed, however, that a record of offering is the same thing as a record of successful sale. For example, Bell Telephone of Canada is in our *Table One* with an offering of 1,580,000 shares of common stock to stockholders, and only 1,198,132 shares were sold under that offering. In this case American Telephone & Telegraph, which owned a little less than ten percent of the outstanding shares, sold its rights and therefore did not subscribe directly or indirectly, in fact it could not legally do so because the Canadian

company had not registered the new offering with the Securities & Exchange Commission. It may be noted that this is the fifth offering of new stock to stockholders by Bell of Canada since 1946 which was not registered with the S.E.C. and therefore not available for subscription by American residents.

Towards the end of May the market seemed to get a little tired of new stock offerings. When books were closed on the 300,000 shares of Food Machinery & Chemical common stock there were approximately 40,000 shares unsold, and the stock immediately declined from the issue price of 44.75 to 42.25. The new shares of Gustin Bacon Manufacturing Company, brought out at offering price of 21.50 fell to 17.875 upon closing of the syndicate. Lion Oil Company common, which offered 400,000 shares at 40.125 saw them fall to 38.75.

Coming to the market some time in June will be two large electric utility common stock offerings, Pacific Gas & Electric 2,271,300 shares and Public Service Electric & Gas 700,000 shares. And of course there will be the American Telephone offering of $510 million of debentures which because of their conversion privilege are expected soon to be converted into stock on a substantial scale.

COMMISSIONS:

P. M. Schuchart

P. M. SCHUCHART, who has had a comprehensive background of more than a score of years in the Bell System and Independent telephone industry and for the past 15 months has been the chief of the Wire Communications Branch of the Federal Civil Defense Administration, was appointed May 20 by the Florida Railroad & Public Utilities Commission as Director of its Utilities Division, a newly-created post, effective June 15.

In his new position, Mr. Schuchart will be responsible for the service phases of the utilities in Florida—telephone, telegraph, electric light and power, and gas. He is resigning from the FCDA staff June 11.

Mr. Schuchart joined the FCDA in February, 1951, at the request of former Florida Governor Millard Caldwell, shortly after the latter was named FCDA Administrator. As chief of the Wire Communications Branch, he has been serving as liaison between the FCDA and the communications industry of the nation.

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The same Raytheon RectiChargeRs which are standard equipment throughout the Telephone Industry also provide unfailing current for safeguarding vaults There is no more convincing testimony to DEPENDABILITY than the application of this equipment to the Protective and Alarm Systems employed by Banks from coast to coast.

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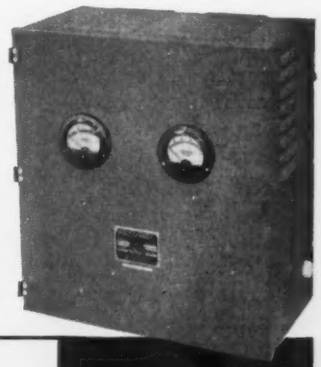
Complete line for all Telephone Needs

Catalog Number	Battery Cells	Amps. Cont.	Input Voltage	Control
RCR-1066B RCR-1058B RCR-1067B	11/12 11/12 11/12	1.0 3.0 6.0	115 Volts, 60 cycle, 1-phase	Magnetic
RCR-2013A RCR-2016A	11/12 11/12	12.0 24.0	115 or 230 volts, 50 or 60 cycles, 1-phase	Electronic
RCR-1068B RCR-1069D RCR-1070D	22/24 22/24 22/24	1.0 3.0 6.0	115 volts, 60 cycle, 1-phase	Magnetic
RCR-2016B	22/24	12.0	115 or 230 volts, 50 or 60 cycles 1-phase	Electronic
RCR-3525 RCR-3550 RCR-35100	22/24 22/24 22/24	25.0 50.0 100.0	208 or 220 volts, 50 or 60 cycles 3-phase	Magnetic Amplifier



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MARINERS PATHFINDER* radar; Submarine Signal FATHOMETERS*; Marine radiotelephones; WELDPOWER* welders; Voltage stabilizers (regulators); Transformers; RectiChargeR* battery chargers; RectiFilteR* battery eliminators; Sonic oscillators for laboratory research; Standard control knobs; Electronic calculators and computers; Television receivers, Radio, television, subminiature and special purpose tubes; MICROTHERM* diathermy and other electronic equipment. *Reg. U S. Pat. Off.

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"Independents To Benefit From Consolidation of Kellogg With I.T.& T."

MAJOR GENERAL Harrison, president of the International Telephone & Telegraph Co., told members of the telephone press June 5 that "The consolidation of the Kellogg Switchboard & Supply Co. with International Telephone & Telegraph Corp. brings together the two organizations of experience and integrity in the telephone communications field."

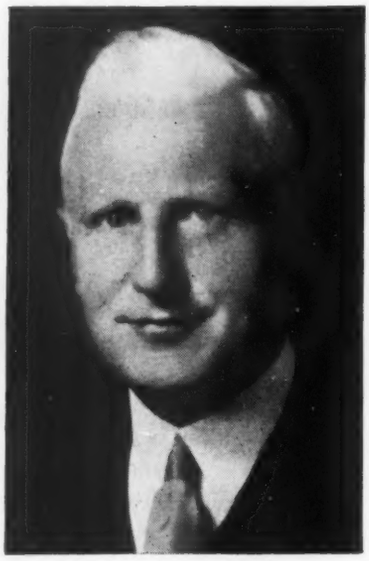
"This joining of forces," he said, "brings to the Independent telephone field far-reaching advantages in basic patents, manufacturing facilities and services beyond possibility prior to the consolidation."

General Harrison placed emphasis on Kellogg's leadership in the Independent telephone field and he stated, "The integrity, the knowledge and understanding of the Independents' problems, and the manufacturing know-how of Kellogg have long been of outstanding assistance to Independent telephony. Since 1897 Kellogg has played a vital part in helping Independents to grow, to prosper, to supply many millions of persons with better and better telephone service. "And now," General Harrison continued, "Kellogg will be enabled to do even more. The consolidation of Kellogg with IT&T brings to Kellogg a vastly increased financial structure, invaluable patents and unlimited access to numerous new products under development in our research laboratories".

General Harrison went on to mention something of the history and standing of the International Telephone & Telegraph Corp.

"IT&T," he said, "was founded in 1920 as an American-owned enterprise that has built an integrated international organization engaged in the development, manufacture, sale and installation of telephone and electronic equipment. Through the associated companies, including Kellogg, IT&T has access to experience as old as the electrical communication industry itself. Two of our operating companies date from 1878 and 1883, and two of our manufacturing companies from 1879 and 1881. Today, IT&T is one of the world's largest producers of electronic equipment."

The IT&T System now includes 30 manufacturing companies in 19 countries; 16 telephone, radio-telephone or radio-telegraph operating companies in seven countries, as well as a cable and radio telegraph network



Major Gen. Wm. H. Harrison, president of the International Tel. & Tel. Co.

joining the United States with many other countries throughout the world.

"However," General Harrison continued, "the consolidation is a two-way proposition, because Kellogg also brings many advantages to IT&T. We have every confidence in Kellogg's management and do not plan any changes in Kellogg Company's management structure—James H. Kellogg, president; Harry C. McCluskey, executive vice-president and treasurer; Claude D. Manning, vice-president and secretary; F. M. Parsons, sales manager; William A. McCracken, works manager, and Norman H. Saunders, as engineering manager. In Kellogg engineering and the quality of its products, we foresee even further improvements over the high standards of the past. There will be no diminution of the care in design and the rigid factory inspection techniques which have earned Kellogg its reputation in civilian and military circles as a quality manufacturer.

"We think these facts will speak for themselves. And we are sure that the combination of IT&T and Kellogg now presents a united front which is bound to benefit the more than 5,000 Independent telephone companies in the United States, their more than 10,000 central offices and their hundreds of thousands of subscribers. Let me say in conclusion that Kellogg, with its roots firmly planted in the Independent telephone company field, is now in better position to serve than ever before in its more than a half century of outstanding performance. From my own intimate experience in telephone operation I know of the tremendous responsibility imposed upon the manufacturer to build greater and greater dependability into telephone equipment and supplies. IT&T System research, engineering and manufacturing resources are dedicated to this principle and it is a real satisfaction to enjoy this expanded association in the Independent telephone field."

TIDEWATER TEL. CO.:
New Microwave System

THE TIDEWATER TELEPHONE CO., Warsaw, Va., has completed plans for the installation of a microwave radio relay system to operate between the company's toll center at Warsaw and its terminal at Mechanicsville. There, the system will connect by cable with the toll office of the Chesapeake & Potomac Telephone Co. at Richmond.

Equipment for the PTM (pulse-time-modulation) link will be manufactured and installed by Federal Telephone & Radio Corp., an associate of International Telephone & Telegraph Corp. It will cover a distance of 45 miles, with a repeater station at mid-point, and will provide 22 toll circuits for voice transmission and dialing. The link will have complete standby facilities in the event of power or other failure.

The microwave terminal equipment at Warsaw will be located in the Tidewater company's central office building, and an antenna atop a 150-foot tower will be beamed to the unattended repeater station. From that point the link will connect with the terminal at Mechanicsville, approximately five miles northeast of Richmond. Here a specially constructed building will house the equipment, and a 200-foot antenna tower will be erected. The system will operate on the frequency band of 890-940 megacycles.

The Tidewater Telephone Co. is regarded as one of the most progressive and rapidly growing independent telephone organizations in the country.

BAKELITE CO.:
Bunn Named Pres.

HOWARD S. BUNN has been appointed president of Bakelite Co., a Division of Union Carbide & Carbon Corp., according to announcement made by James W. McLaughlin, Bakelite's chairman. Mr. Bunn has

been vice-president of Bakelite and Carbide & Carbon Chemicals Co., both divisions of Union Carbide.

Mr. Bunn entered the Carbide organization in 1922 as a salesman of alloy specialties for the chemical industry. After several years as an advertising writer he became advertising manager for Carbide & Carbon Chemicals Co. Later he became manager of the Pyrofax Division of that company. In 1938 he was appointed manager of the Plastics Division of Carbide & Carbon Chemicals.

In 1944 Mr. Bunn was made vice-president, Plastics Division of Carbide & Carbon Chemicals Co., and vice-president in charge of sales, Thermo-plastics Division of Bakelite Co. He is a director, and vice-president of Bakelite Co. (Canada), a director of Bakelite Limited (England), a director and vice-president of Canadian Resins & Chemicals Ltd., and a director of U. S. Testing Co.

FEDERAL TEL. & RADIO:
New Vice President

THE ELECTION of T. M. Douglas as a vice-president and director of Federal Telephone & Radio Corp., Clifton-Passaic, N. J. associate of the International Telephone & Telegraph Corp., was announced recently

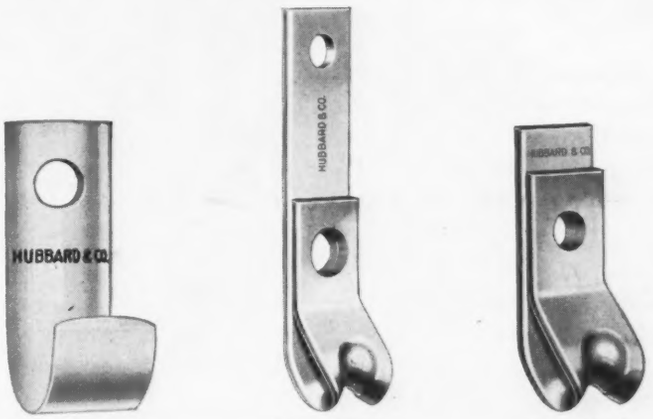
T. M. Douglas, newly-elected vice president and director of Federal Telephone & Radio Corp.

by Henry C. Roemer, president of Federal. At the same time, it was announced that S. J. Powers, manager of Federal's Selenium-Intelin Division, had been elected a vice president.

Mr. Douglas, formerly works manager, will now serve as general works manager, with responsibility for Federal's varied manufacturing activities

HANG THE LOAD ON HUBBARD HARDWARE

HUBBARD GUY ATTACHMENTS
Hot Galvanized



No. 7584 **No. 6001** **No. 6004**

Hubbard makes a complete line of Guy Hooks and Attachments to meet the great variety of needs and requirements of various operating companies. Included is a range of sizes in light and heavy "regular" guy hooks, crossarm guy loops, and the "closed" type storm guy attachments in steel and malleable iron. To give the strand a safe bending radius all styles are constructed with rounded wire-grooves. Write for detailed descriptions or call the Hubbard Distributor nearest you.

HUBBARD HARDWARE FOR THE TELEPHONE LINE

OVERHEAD

Cable Suspension Material—Wireholders
Pole Seats and Balconies—Clevises
Braces—Drive Hooks—Messenger Dead Ends—Extension Arms—Long Span Material—Pins—Clamps—Guards—Stubbing Bands—Guy Protectors—Guy Clamps
Pole Struts—Clips—Straps—Hangers
Carriage Bolts—Rings—Transposition Brackets—Eye Bolts—Pole, Corner and House Brackets—Guy Hooks—Strain Plates—Storm Guy Straps—Lags—Machine and Hubeye Bolts—Sidewalk Guys
REA Telephone Hardware

UNDERGROUND

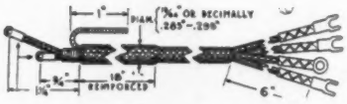
Cable Racks—Manhole Ladders and Steps
Pulling-in Irons—Expanding Anchors
Cable Shields—Screw Steelwing Anchors
Anchor Rods—Ground Rods and Clamps

HUBBARD AND COMPANY
ESTABLISHED 1843
PITTSBURGH • CHICAGO • OAKLAND, CALIFORNIA
"Hang the Load on Hubbard Hardware!"

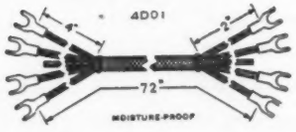
Precision Made Runzel Cords

The precision in details—leg length, trim, terminals, tracer color, and stay fastener—make Runzel cords preferred by those who install them.

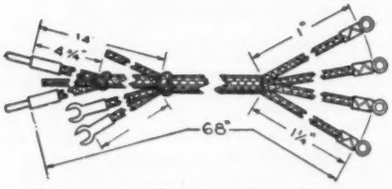
The high quality of tinsel and braiding materials, plus taut braiding and fine finishing, provide longer trouble-free service.



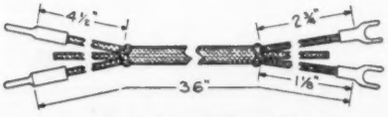
Switchboard Cords
Cotton and Nylon



Handset Cords



Operators' Cords



Receiver Cords

Complete Listings in Suttle Catalog Shipped from Suttle Stock

See Your SUTTLE Catalog

Serving Independent Telephone Men Since 1910

Suttle EQUIPMENT CO.

LAWRENCEVILLE ILLINOIS

S. J. Powers, manager of the Selenium-Intelin Division, Federal Telephone & Radio Corp., has been elected a vice president.

at the Clifton, Passaic and East Newark plants. Prior to his appointment as works manager, he was plant manager, director of the radio and telephone divisions and production manager. A native of Stamford, Conn., he was educated at Vanderbilt University.

Mr. Powers, who becomes vice president, is director of Federal's Selenium-Intelin Division, and has served in key executive positions with IT&T both here and abroad since 1934. He was named head of that division in 1947. A native of New York City, he received his Bachelor of Science degree in electrical engineering from the Cooper Union School of Science in 1928. Mr. Powers is a member of the Institute of Radio Engineers and the American Institute of Electrical Engineers.

LINDE AIR PRODUCTS:
New President

THOMAS D. CARTLEDGE has been appointed president of Linde Air Products Co., a Division of Union Carbide & Carbon Corp. Mr. Cartledge has been senior vice-president of Linde Air Products Co., and a director and vice-president of Dominion Oxygen Co., Ltd., a Union Carbide subsidiary.

Mr. Cartledge was born in Jefferson, Ga., and attended Erskine College in South Carolina. He entered the United States Navy as an enlisted man at the beginning of World War I and rose through the ranks to Lieutenant (j.g.). Upon leaving the service, he was employed by Linde as a salesman, assigned to a Cleveland territory.

Raymond M. Waggoner, started his career with Hubbard cal Materials Division, in September, 1922. In 1928 he was appointed assistant sales manager, Northeastern territory. In 1936 he was transferred to Chicago as sales manager of the Midwest territory. In the latter part of 1948 he was elected vice-president, sales and a director of Hubbard and Company, and returned to Pittsburgh. On April 21, 1952, he was transferred to Oakland as vice-president, Pacific Coast Sales.

Marshal Lasher joined Hubbard & Co. in October, 1922 and was first employed in the Railway Track Tool Division as assistant manager. In 1926 he was transferred to the Electrical Materials Division. In 1929 he was appointed assistant manager of the Pittsburgh factory and later became assistant to the executive vice-president. In November, 1945, he went to Oakland, Calif. as assistant to the late W. W. Glosser. On April 21, 1952 he was elected vice-pres. of Hubbard & Co., Calif., and a director of Hubbard & Co.

Ed Smith knew the Jacksons were away on vacation... but there was a light in their dining room! He reached for his telephone... and within five minutes police nabbed the intruder.

• • •

Behind the accepted reliability of telephone service there is a dramatic story of continuing *research*, of skillful *manufacture* and dependable *operation* written by America's telephone industry.

Western Electric's part in the story is to manufacture the kind of telephone equipment which helps to make this reliable service possible.

Western Electric

TELEPHONE APPARATUS AND CABLE

STROMBERG-CARLSON:

Tel. Division Forges Ahead

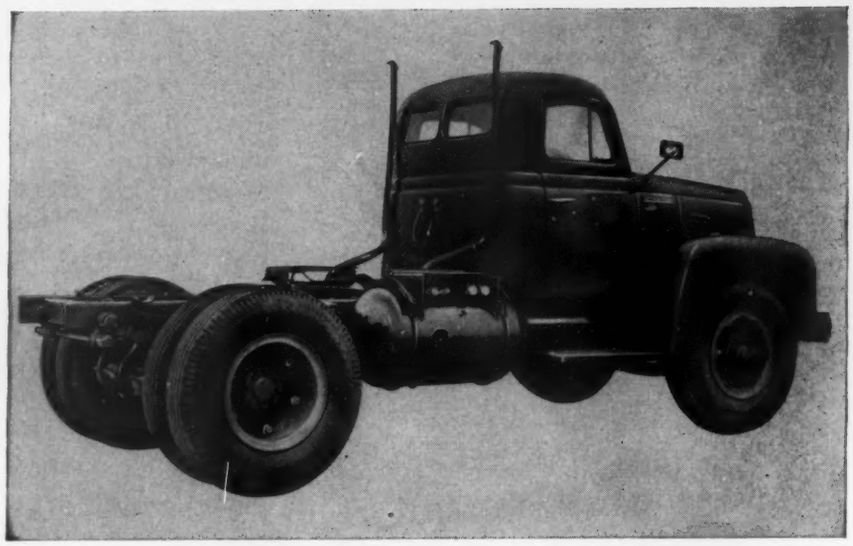
THE TELEPHONE DIVISION of the Stromberg-Carlson Co. continues to forge ahead to higher sales volumes and increased earnings both in civilian sales and defense production, President R. C. Tait told the company's annual stockholders' meeting at Rochester, April 23, where 75% of the common stock was represented in person or by proxy. The Stromberg-Carlson chief executive forecast that this year will be one of the highest production years in the company's history and he reported to the shareholders that sales for the first quarter of this year of $9,000,809 were 10% greater than for the comparable three months in 1951.

In his summation of the achievements of the Stromberg-Carlson Telephone Division, President Tait stated that "civilian telephone sales exceeded civilian radio and television sales for the first time last year and should exceed them by an even wider margin this year." He cited that approximately 1,250 Independent telephone companies out of the 6,000 Independents in the country constitute the primany market of Stromberg-Carlson. In the defense contracts of the Telephone Division, he noted that the company was particularly proud of a highly confidential, complicated electronic device being produced for the Navy which was conceived and developed by the Stromberg-Carlson Research Department. The test models were accepted by the Navy, he stated, and the Telephone Division developed the laboratory models further for production which is now being undertaken.

President Tait also informed the stockholders that the new subsidiary, Stromberg-Carlson Credit Corp., organized to provide long-term financing to Independent telephone companies, has had its commitments increasing steadily in funds for Independents to purchase dial equipment and modernization of plant. The debentures of the Credit Corp., fully secured by the companies' installment notes, are sold, he said, to the Metropolitan Life Insurance Co. which has already committed $5 million to this subsidiary and it is expected this amount will be entirely taken up by the Independent companies before the expiration of Metropolitan's commitment in mid-1954.

"The Credit Corporation will thus not only assist Stromberg-Carlson Co.," Mr. Tait declared, "in obtaining a substantially increased amount of telephone business that it might not otherwise get, but should be a profitable operation in itself."

The Stromberg-Carlson president informed the stockholders that several substantial new defense contracts have been awarded to the company since the end of the year and "still more appear to be on the horizon."



The motor truck division of International Harvester Co. introduced for the first time in motor truck history, factory built, liquefied-petroleum-gas-powered engines as Underwriters Laboratories listed equipment on trucks. The propane-butane-fueled engines are optional equipment on International truck models equipped with International Super Red Diamond engines. Large fuel tanks permit trucks to operate up to 400 miles between refueling. International LP-gas-fueled model L-205 is shown above.

New Texas Co-op

JAMES P. PINSON of Lyford, Texas, is president of the newly organized Valley Telephone Co-operative, Inc. Other officers are Godfrey J. Lassig of Lyford, vice-president, and Burton C. Hester of Hargill, secretary-treasurer.

A charter has been granted and a loan application is in process of approval in Washington, according to John Bowe, Mercedes, attorney for the co-operative. An engineering firm is making a preliminary survey, and plans are to use Magic Valley Electric Co-operative power lines for the telephone system in Cameron, Hidalgo, Willacy and Starr counties.

Federal PTM MICROWAVE . . . for toll circuits without line construction

FEDERAL TELEPHONE AND RADIO CORPORATION

An IT&T Associate

Clifton, N. J.

STROMBERG-CARLSON

transmitter

Published by the makers of famous XY Equipment

VOL. 1, NO. 3, JUNE 1952

New Systems Developed for Subscriber Toll Dialing

by John H. Voss, Chief Engineer, Telephone Division

MUCH has been printed about the possibilities of subscriber toll dialing. The basic advantage of having the subscriber establish his own calls is to reduce operating costs; these costs have been constantly increasing and have reached, in many instances, a point wherein it is no longer profitable to continue with the present practice of having operators complete short haul toll calls.

Operating companies have been aware of this condition for some years and have looked to manufacturers of telephone exchange equipment for a new operating medium to make profitable the handling of these toll calls. Several manufacturers have produced an answer to the problem in the form of Toll Metering and Toll Ticketing facilities to record data to bill subscribers for toll messages which they complete without the assistance of an operator.

Toll Metering facilities have been available for a longer time than many may realize and have been used in many instances to good advantage where it is possible to record on a bulk billing basis. Only a record of the total amount of chargeable units within the billing period is made; no attempt is made to itemize each call made by a customer. Where applicable, Toll Metering facilities will provide the basis for subscriber short haul dialing on a most economical basis; Stromberg-Carlson provides this type of system for recording toll calls dialed by subscribers, arranged to provide upwards of ten parties per line.

Itemized Billing Required

There is, however, an increasing number of situations where the chargeable units for short haul toll traffic must be on a different "unit" basis for each dialed destination; to accomplish this requires a more elaborate method of recording these chargeable units than is possible with Toll Metering facilities. It is also believed by many operating companies, and required by some state commissions, that the subscriber should have an itemized statement of toll calls he has completed in a billing period. Where a subscriber has access to many distant points requiring different rate structures, there appears to be justification for a system which automatically identifies and records the charge for each call.

An investigation into the Toll Ticketing systems now available will show that great strides have been made in a relatively short time and that there seems to be no limit to what may be accomplished in recording, transcribing and printing of toll tickets; even the monthly subscriber bills can be prepared by machines, if desired.

(*Please turn page*)

STROMBERG-CARLSON transmitter

Just how elaborate a Toll Ticketing system should be depends on many circumstances: the size of the installation, the complexity of the trunking network, the amount of traffic to be handled. Revenue received from toll calls must justify the initial cost, as well as the cost of maintenance, of the Toll Ticketing equipment.

New System is Economical

Stromberg-Carlson has had under development for several years a Toll Ticketing system which is believed to have definite economical advantages to the operating company. Initial costs have been carefully considered, and simple and dependable equipment will hold maintenance costs to a minimum.

Our Research Division, under the guidance of Project Engineer, Frank Morris, and an able staff of engineers, has applied their knowledge of recording and transcribing devices to the problem of the billing of toll calls and has developed a new concept for such equipment. It is now possible to have simple electro-mechanical and electronic devices for recording, transcribing and printing of toll tickets.

The Stromberg-Carlson Toll Ticketing system makes use of a unique recorder, individual to each trunk for storing information. It is the same size and shape as the XY switch, mounts in a regular XY switch cell, and is jacked into the associated trunk relay equipment by means of a cord and plug like that used for the XY switch; the recorder thus retains the flexibility and interchangeable characteristic of the XY switch.

The recorder uses an endless loop of standard recorder magnetic tape as the storage medium. Magnetic recording was an obvious choice for a storage medium because of its mechanical simplicity and the fact that it can be used over and over again; the only mechanical process performed is moving the tape across the recording head at a slow rate. The tape is "sealed" in a compact magazine for protection and provides storage for an ample number of calls. The recorder registers the calling and called subscribers' numbers, the time of day and the date, and duration of the call. Equipment common to all trunks provides the time of day, date and pulses for recording the duration of the call; this information can be given to any number of recorders simultaneously.

One Machine Tells Another

Common play-back equipment attaches itself to each trunk recorder according to a pre-arranged schedule to permit common interpreting equipment to analyze the information recorded on the magnetic tape; play-back speeds are many times faster than those used in the recording. The interpreting equipment operates a ticket printer or card punching machine, if machine billing is desired; this printer or card puncher is common to all recorders and may handle ticket information for several offices. This is accomplished without the transportation of tapes or tickets from office to office.

Preferred System

It can be readily understood that any machine capable of determining the number of the subscriber initiating a toll call is necessarily complex and expensive. From the subscriber's point of view the preferred system would be one requiring the dialing of the least number of digits; i.e., the trunk group code and the number of the wanted party.

Many operating companies contemplating Toll Ticketing equipment may wish to consider the advisability of installing less expensive equipment, one for instance, wherein the calling subscriber must dial his own number for identification before dialing the number of the wanted party. It should be obvious that such a system is considerably less expensive and not nearly so complex. Stromberg-Carlson will exhibit both Toll Metering and Toll Ticketing for Subscriber Toll Dialing at the fall convention of the U.S. Independent Telephone Association, with the idea of acquainting operating company personnel with what we consider simpler and less expensive systems for the small and medium size exchanges.

In *Texas* They Like to Prove It

Carl Price, Stromberg representative in and around Texas, knows his customers (they like to be shown) and his Stromberg-Carlson equipment (it's built to last). Let's hear the story as Carl told it:

"I grabbed our 1443 Telephone by the cords and drug it out of the car on the ground. The concrete street looked pretty solid, so I pitched it out into the road. Then I took the cover and threw it all over the place. It got a little scratched up, but went back on all right. Asked my customer if he had any phones from other manufacturers—said I'd like to 'test 'em a little.' He said 'Gosh, no; I paid for them and don't want to break them.' After we'd cooled off the 1443 for an hour or so in the deep freeze, we connected her up and he allowed he was mighty impressed."

MEET John H. Voss

Born in Manila, Philippine Islands, John Voss spent his boyhood days in Washington, D. C. He grew up in a Washington which was safe for a boy to ride his bike down Capitol Hill, for Washington was then a "sleepy" town of moderate size.

Indoctrinated into electrical engineering at Bliss Institute, Washington, D. C., he immediately went into the telephone industry on graduation, starting as a student installer with Automatic Electric Co.

His first telephone experience was on the conversion of the Keystone Telephone Company to dial in Philadelphia. Later he transferred to the Engineering Department of Automatic Electric, advancing to project engineer for new dial systems.

His experience in the development and research of new dial systems aroused his interest in the new XY system which Stromberg-Carlson was developing and, in November 1946, he entered this Company's employ as a project engineer. In 1948, he assumed his present responsibilities, that of Chief Engineer, Telephone Division. He has had 32 years engineering experience which is used to good advantage in directing the operations of the engineering department.

He is a member of engineering societies, Chamber of Commerce, the Telephone Pioneers of America and a registered Professional Engineer in the State of Illinois. Some 45 patents have been issued to him on new ideas pertaining to the telephone art.

A family man, he has two daughters and is interested in Church, PTA and civic organizations. His hobby is his work. However, for diversion, he has a woodworking shop and several cameras which he hopes to understand some day.

His ambition is to acquire a magneto exchange on retirement; one where the subscribers do their own fence-mending and the operator can spend all his time at the corner store reading "TIME".

STROMBERG-CARLSON transmitter

West Coast Branch Office Swings into High Gear

San Francisco Branch is managed by Joseph P. Galligan, shown here with his secretary, Suzi Jacobs.

Mary Gomez

Since the end of World War II, the San Francisco branch of the Telephone Division has been under the management of Joseph P. Galligan. Mr. Galligan, like many telephone men, started his career in the installation department when he joined the Stromberg-Carlson Company in 1915. Except for a "hitch" in the Navy during World War I, the entire 37 years have been served in various telephone capacities, principally sales. For 25 years he traveled the Middle West, and was transferred to the West Coast as branch manager of telephone sales in 1945.

Since that time the San Francisco branch has continued to grow and the amount of business which will be handled from its operation this year will exceed that of 1946 by 3½ times. As the branch located farthest away from the home office in Rochester, New York, it serves the largest single territory in the company's operations. Covering the eight western states of California, Oregon, Washington, Nevada, Utah, Idaho, Montana and Arizona, Mr. Galligan's branch also includes Hawaii and Alaska. The number of square miles involved totals 4,423,326 or approximately 545,048 square miles more than all of the United States east of the Mississippi River. The sales and engineering staff numbers an even dozen to serve this tremendous territory. They are as follows:

Fred Fairly

Marjorie Brul

Morris L. Hansen

R. H. Phelps

Joseph P. Galligan—Manager, San Francisco
M. Fred Fairly—Sales Engineer, San Francisco
Morris L. Hansen—Sales Engineer, Portland, Ore.
R. H. Phelps—Sales Representative, El Monte, Calif.
Coit V. Henley—Sales Representative, Boise, Idaho
Fred E. McGrady—Sales Representative, Seattle, Wash.
Phil Blood—Office Manager, San Francisco
Paul Riviere—Order Editor, San Francisco
Marjorie Brul—Cashier and Secretary to Mr. Fairly
Suzi Jacobs—Secretary to Mr. Galligan
Mary Gomez—Biller-receptionist, San Francisco
Harold Hillary—Shipping Clerk, San Francisco

Coit V. Henley

Fred E. McGrady

Located at 1339 Mission Street with 6500 square feet of space at their disposal, the branch is well stocked with telephone instruments, PBX switchboards, convenience systems, XY equipment and construction supplies with which to give prompt and immediate service. The most phenomenal growth which has occurred in this territory has been that of the conversion to dial operation.

Approximately 75 dial exchanges, principally XY equipment, have been installed or placed on order since the introduction of the XY dial system following World War II. In addition, some 50 manual exchanges have been equipped and hundreds of thousands of telephones, convenience systems and the like have been installed through the San Francisco branch since V-J Day.

Phil Blood

Paul Riviere

Stromberg-Carlson is proud of the accomplishments of this fast growing and distant branch office and, in the words of its manager, "We are really going places out here in the West. Our growth from here on should match that of the West itself which is expanding by leaps and bounds."

Shipping Clerk Harold Hillary sends out needed items from stock of supplies at San Francisco branch.

STROMBERG-CARLSON transmitter

XY Dial System Has Leading Role In Small Town Success Story

Alfred, New York, is one of hundreds of small towns where the life stream of our country flows strong and true; the main highways pass on either side of the mountains, and train service is by local branch.

Few in looking at a map would select this village in New York's "Southern Tier" to hunt up a success story; yet it is in the American tradition to find real achievement being made in the smaller towns.

In this case, the achievement is the complete modernization of the town's telephone system—catapulting communications from the outmoded magneto operation which had served so long and so well, but was no longer adequate, into the latest in automatic dial telephony—Stromberg-Carlson XY. The transition was a masterpiece of enterprise and perseverance, as a result of which Alfred is now served by a completely modern system adequate to serve its present needs, and adaptable to future growth.

What has been done at Alfred is symbolic of the progress being made in small communities all over the country. Let's take a closer look at the town, and see what makes it so typical.

Alfred's history has been that of its University of the same name, founded many years ago by Seventh Day Baptists. The flavor of the last century is apparent in its Main Street and its Old World carillon tower. Now a part of the State University system, the 1700 students pursue courses in agriculture, ceramics, liberal arts and the sciences. New buildings are under construction, indicating a normal expansion in the main industry of the village. Its second largest industry is a small ceramics factory at the other end of town.

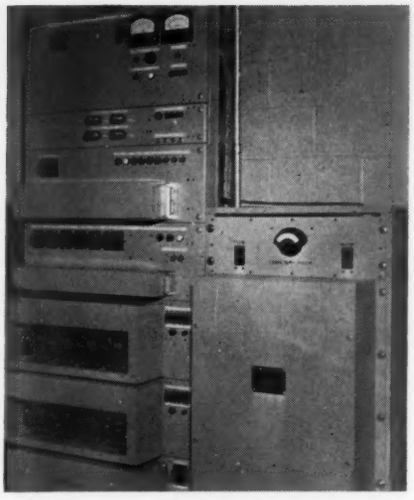
No one expects Alfred to grow large, or change the character it has acquired over the years. Even the Post Office Department is resigned to the custom—unique in the whole country—of closing on Saturday and opening for business on Sunday.

"Where is Alfred, New York?" This question was asked many times that morning three years ago when a gentleman from Alfred stopped in at Metropolitan Life in New York City. The man was William B. Harrison, president of the Allegany Telephone Company; and his visit led to the granting of the first small telephone company loan by the Metropolitan Life Insurance Company. The before and after story is interesting to all telephone men, especially those whose exchanges are in small towns.

In this new building at Almond, N. Y., a 150-line XY System will be installed this summer. This will complete Allegany's "success story."

Telephone service in Alfred began in 1897 and was still run as a magneto operation by the original owner when Mr. Harrison left the University to assume direction of the company in April, 1949. As a professor of Electricity, he had learned what makes a telephone tick, and what the modern dial switching systems offered. As Mayor of Alfred for two years preceding, he had received many requests to do something about improving the service, especially to lighten the subscriber load on rural party lines. His decision to go immediately to dial operation achieved several positive gains: customers who were used to ringing up their own connections found the transition easy; a parallel system could be installed and made fully ready for operation before the actual cutover, at which time the former instruments were simply taken out and sold; savings on operator expense could be realized sooner.

The first step—money for a new outside plant—was not easy; banks in the larger cities asked questions about "inventory and turnover" as if talking to grocers. But the nearby small towns of Wellsville had sent one of its sons, Raymond N. Ball, to Rochester where he had not only become head of one of the largest banks in western New York, but also remembered proudly his small town heritage in the Southern Tier. He granted Mr. Harrison more than the amount first requested for cabling, and was able to arrange the meeting with Metropolitan officials in New York who were enthusiastic about the plans to install Stromberg-Carlson XY dial equipment within this service area.



This Power and Supervisory Board was installed by Stromberg-Carlson for the Allegany Telephone Company.

While Alfred was being converted to XY, Mr. Harrison and his son, who had joined him in the business, acquired the properties at the neighboring villages of Almond and Andover. XY dial, on an unattended basis, was placed on order for these other two exchanges; toll connections to the New York Telephone Company offices in the nearby cities were maintained.

Alfred, with 340 lines equipped, was cutover February 28, 1951; Andover, with 250 lines equipped, was cutover June 15, 1951. The attractive brick building at Almond is ready to house the 150-line XY equipment which will be installed this summer. At the present time a total of 1414 stations are to be served. Village service is 4-party harmonic, rural service is 8-party divided. In all buildings the frames and reserved space will make possible a quick and economical expansion up to and beyond any growth which is foreseeable in the future.

"When I took over the telephone company, a real challenge was thrown at me," said Mr. Harrison. "Many who felt that small rural communities like Alfred and Andover were out of step with the times, could see no future in trying to improve the service. I like small towns. I believe they're here to stay if we can provide those necessities and conveniences which make small towns a pleasant place to live." In speaking of the future, Mr. Harrison expressed one dismay about his current operation. "This XY dial system doesn't give me enough to do to keep busy. My son had to go out and find another exchange to run. Maybe I'd better see if there aren't some other magneto exchanges lying around which need modernizing."

Mr. William B. Harrison, President of Allegany Telephone Company, is just as pleased as all his customers with the speed and reliability of XY System in Alfred, N. Y.

STROMBERG-CARLSON **transmitter**

FACTORY TRIP

This month's article features materials control. Its author, Howard Strassner, is shown in the center of the accompanying illustration, flanked by Roy Jones, left, and Herbert Kiesow.

Controlling Flow of Material is No. 1 Job in Meeting Schedules

"It's like riding two horses going in opposite directions," says Howard Strassner, Divisional Production Manager of Stromberg-Carlson. "We have never seen such a demand for our products, so the pressure is on to advance delivery schedules; on the other hand, restrictions and shortages of critical raw materials keep us on our toes all the time to see that all components reach the assembly lines together. It's a challenge."

Out of long experience in producing telephone equipment, Howard and his able team of Herbert Kiesow, Production Control Manager, and Roy Jones, Chief of Scheduling, have evolved a plan for controlling the movement of materials and parts through the factory, quickly and efficiently.

The high production levels maintained during World War II were possible only after a thoughtful analysis of the problems of material flow and the development of a master plan to be followed diligently. During the last two years the telephone division has experienced the greatest demand for new products in all its 58-year history. Without a workable plan for controlling materials, the stepped-up schedule could never have been met. One valuable innovation has been the introduction of machine tabulation for recording and duplicating inventory and requirement information on punched cards. This has speeded up the operation and also made it more flexible. In the same manner, master shop schedules are prepared weekly and checked against actual progress in the machine and assembly departments.

It is easier to see the merits of this material control plan if we break it down into its steps in sequence.

1. ***Raw materials.*** After a design such as the new 1400 Series Telephone has been developed by the engineers, or an order for a new XY dial exchange has been written to customer specifications, the necessary raw materials are authorized from bills of material prepared by the Production Engineering Department and new balances struck on the master stock card. Using the tabulating machines it is easy to determine necessary procurement.

2. ***Writing processes and procuring tools.*** In these days of restrictions and shortages, extreme care must be taken to get the maximum use from each pound of critical material, and to prepare new processes for using alternative materials where they have application. The tool crib is contacted for available tools; where necessary, procurement follows.

3. ***Placing requirements on master schedule.*** The project expediters in the dispatch centers of the manufacturing departments—punch press, screw machine, drill press, plating, and others—now determine requirements as against inventory of each part and place this on the master shop schedule.

4. ***Delivery of raw materials and tools.*** All future scheduling is dependent upon coordination at this point. After inspection the raw material is released by the dispatch centers to be cut and delivered to machine departments against open requirements as shown on the master shop schedule. One of the most important functions of the dispatch center is to specify the sequence of these deliveries. As raw material is received in the manufacturing departments, the dispatcher notifies the tool stockroom of his need for tools; stock and tools move together to the assigned machine and production may start.

Efficient traffic control brings all the parts together at the right time and place. At right, the famous XY switch **is being assembled and tested.**

Reserve supplies of rods and bars are stored in the raw materials section. They are coded by color for easy identification.

5. ***Manufacture of parts.*** The department foreman is entirely responsible for production, floor inspection and packing of these parts in suitable containers. The dispatcher then directs a trucker to move the parts to a centrally located inspection area, where a complete inspection is made in detail according to the process set-up, to be sure that the uniformly high quality standards established by the company have been met. Inspected parts are billed by the dispatch center and trucked to the next department, if further operations are necessary, or to the stockroom as designated on the billing ticket.

6. ***Stocking of parts.*** The stockrooms verify quantity by weighing or counting, and check their short list file for requirements. Tabulating cards for established economical lot sizes have been made in duplicate; these cards designate specific requirements for assembly lines, and are the means for billing out the necessary quantities. One card is used for identification and delivery and travels with the stock to the assembly department where it is used to make adjustments in stock status condition and later is sent to the accounting department for cost records.

(Please turn page)

STROMBERG-CARLSON **transmitter**

7. Assembly and shipping of finished products. The assembly department stock clerk receives, counts and delivers the parts to the proper assembly line operation. After assembly, the finished product is given a rigid and thorough test simulating the most adverse conditions which will be encountered, after which they are sent to the shipping department to fill back orders, or to the product stockroom for temporary storage.

This, in abbreviated form, is the cycle for all fabricated parts—simple on paper, but requiring the utmost diligence all along the line. Why is this of interest to telephone men? We need only to mention the demands for more and more service made by customers or those who are still wating for telephone service—you, who are on the firing line know this well. Therefore, the materials flow plan adopted by Stromberg-Carlson, which has shortened delivery schedules by a full third, is important to you. If present delivery schedules still seem to be holding up the expansion you have in mind, it is brought about because more and more companies have decided that in XY as in all Telephone products "There is Nothing Finer than Stromberg-Carlson."

They're Going XY In Illinois

Millstadt, Illinois, Welcomes XY in Midnight Cutover Ceremony

Testing Millstadt's new XY system are Wayne Ritter (kneeling), and Oscar Krick, Manager.

In a midnight ceremony on January 26, William Osick, President of the Millstadt Telephone Company, snipped the wires of Millstadt's old manual system, and XY took over the job of serving the community's 800 telephones.

The new cutover to dial is the latest development in the telephone company's 46 years of faithful service. Subscribers, enthusiastic to try out the innovation, began spinning their dials as soon as the system went into operation—so soon, in fact, that the telephone company was unable to credit any one person with the "first call."

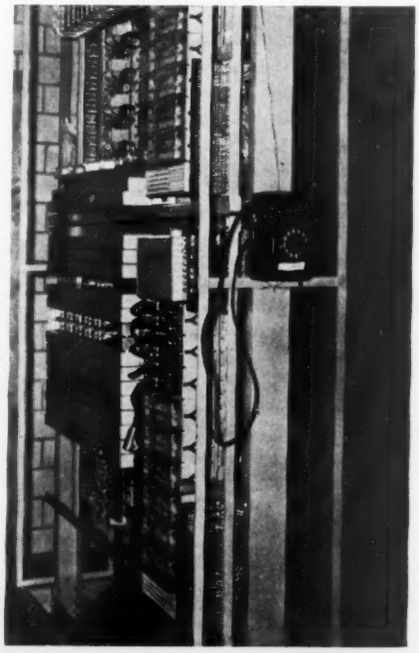
Present at the cutover ceremony and accompanying dinner, which took place at 1 A.M., were directors, friends and employees of the telephone company, visiting representatives of the Southwestern Bell Telephone Company, and the engineers from Stromberg-Carlson who installed the system.

Beecher City Changes System to XY

Their first encounter with the dial telephone evokes amazement and amusement among curious Beecher City youngsters, as Stromberg-Carlson installation man shows them how it works.

At Beecher City, Illinois, the National Trail Telephone Company cut over to Stromberg-Carlson XY dial equipment on February 11. This is the latest development in the telephone company's continuous effort to provide the best of facilities and operating efficiency to the entire community.

Eminently responsible for bringing the convenience of XY to Beecher City subscribers were J. A. Stice, Manager, and Ancil La Fevers, Plant Superintendent. Through their efforts, the cutover ran smoothly, and efficient dial operation was launched in the community.



Part of the XY system at Beecher City, cut into service on February 11.

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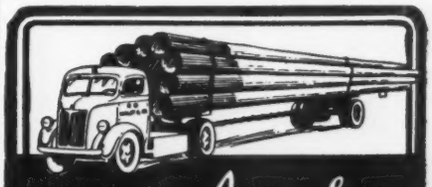

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THE BACK OF THE BOOK

By JOHN G. REYNOLDS, Managing Editor

"No Room To Talk . . ."

"NEW YOK Kalling Waw-Ko." An editor of the *Southwestern Telephone News* heard a New York operator say just that recently. The experienced inward operator handling the call at Dallas gave her Waco, Tex., with no questions asked. This same operator told the editor she could close her eyes, plug in a multiple strip and "nine out of ten times" tell what part of the country the operator was calling from.

This aroused our editor friend's curiosity. And he began to ask questions. "Why do people from different parts of the country talk differently?" And "what expressions are typically 'eastern' or 'southern'?"

He found a few answers. He found that most Americans speak "General American." Southerners and easterners are exceptions. And they have no room to talk . . . at least about each other's accents.

All of us talk like the children in our home town talked. "Why did they talk that way in the first place?"

Well . . . nobody really seems to know for sure. But the famous "ha-a-vad" accent originated in the London slums some 150 years ago. About the same time, it became fashionable in England to skip the R's. The fad spread to New England and New York, then trickled south—way south. New Yorkers began to say thuddy-thud for 33rd. So did the folks in New Orleans. But New Yorkers changed their pronunciation to "thoity-thoid." Buses, trains, planes and automobiles brought this "Brooklyneese" to Miami and New Orleans. In fact, most people in both places have a definite Brooklyn accent today.

Even with phonetic spellings we can't accurately reproduce word sounds. But typical eastern pronunciations for brother, mother, sister, arbor, car and scar are "brothah, mothah, sistah, ahbah, cah, and scah." Around Boston and Philadelphia you might hear "bid-aid-does" for potatoes.

Bostonians also say "shaa-a-k" for shark, "coib-stone" for curbstone, "ba-a-h-th," with a flat a, for bath.

Stories about how people talk are endless. The story we like is the one about the London operator who struck up a conversation with a visiting operator from Oklahoma. The Londoner rebuffed the Oklahoman for not pronouncing the word "schedule" properly. She said "traffic schedule" should be pronounced "traffic sayjewel". After some thought our Oklahoma girl answered, "Well, I suppose we Oklahomans just haven't had the proper "shool-ling."

Southern operators, and especially those in Texas and Arkansas, can usually be depended upon to call "Victah" instead of Victor, ask if they're "cleah on heah," call themselves 'Op-pa-ray-tahs" and tell you they're "holeing" the circuit.

These same operators are amused by eastern operators who ask for "Lube-bock," "Cur-e-o," and "Mex-e-a" for Lub-buck, Quay-row (spelled Cuero), and Ma-hay-a (Mexia).

True southeners invariably say "chile" for child "theng" for thing; "pinny" for penny; "min" for men; "lingth" for length, and "stim" for stem.

Among non-southerners, the expression "you-all" or "y'all" is generally used to typify southern speech. So next time an easterner asks "why you say y'all," look him straight in the face and say: "Youse got me."

• • •

Moscow Telephone Directory

IF YOU WANT to telephone the Kremlin, the number to call is Center 67571. That is the telephone number of the presidium of the Supreme Soviet, whose offices are in the Kremlin. It is the first telephone number listed under Government offices in Moscow's new city telephone directory.

According to Harrison E. Salisbury, of the *New York Times* foreign service, publication of the new Moscow telephone directory is an event which has been eagerly awaited for some time. The new directory weighs 3½ pounds and carries the listings of about 52,600 individual telephone subscribers, some 7,600 telephones collectively used by apartment house residents and about 15,000 other telephone numbers of offices, stores, schools, etc.

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Necessity led to the development of such standards and in most cases this same need led to universal acceptance of the standards after they had been proven. There are, however, a few notable exceptions to this convention. For example, we find that very few Independent Telephone Companies have ever applied a proven standard of measurement to their directories.

LET US ASK YOU JUST ONE QUESTION.

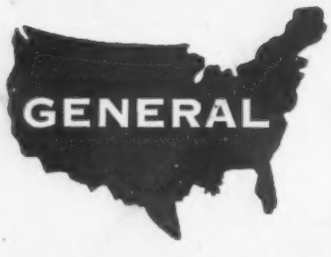
Did you measure the results of your current directory by simply comparing it with your previous issue? Unfortunately, most telephone companies are still following such a procedure.

The records we have compiled from publishing telephone directories which serve more than 4,000 Independent Telephone Exchanges have enabled us to establish positive standards by which we can measure the success of a telephone directory publishing job. Among the standards we have developed, are: normal directory revenue per station; normal directory revenue per business account; normal directory revenue per advertiser; and, average number of advertisers per one hundred business accounts.

These established standards, when applied to your current directory, will show you whether or not it was as successful as it might be. And, it will be quite apparent whether or not we can increase your net profit from your directory.

Let us prove the validity of our claim. Send us a copy of your current directory and let us make a study of it without any cost or obligation whatsoever.

Mail us a copy today — you have everything to gain and nothing to lose!



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